Siting Power Plants

Recent Experience in California and Best Practices in Other States

Susan F. Tierney and Paul J. Hibbard
Lexecon, Inc., Cambridge, Massachusetts

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The Energy Foundation • 1012 Torney Avenue, #1 • San Francisco, CA 94129
Tel: (415) 561-6700 • Fax: (415) 561-6709 • Email: energyfund@ef.org

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Lexecon is an economics and policy consulting firm with a specialty in energy and natural resources, and in particular, the electric industry. Tierney and Hibbard are at Lexecon's Harvard Square office in Cambridge, Massachusetts.

This report may be downloaded from the Energy Foundation web site at www.ef.org.

Background of the Authors

This report was prepared by Susan F. Tierney, and Paul J. Hibbard of Lexecon Inc., Cambridge, Massachusetts.

Susan F. Tierney, Ph.D
Senior Vice President — Lexecon Inc.

Susan Tierney is a Senior Vice President at Lexecon, where she provides economic, environmental and policy consulting to businesses, government agencies and other organizations involved in energy industries. She focuses on wholesale power market policy and analysis, electric and gas infrastructure siting, and environmental policy and analysis. Prior to joining Lexecon, Dr. Tierney held several senior government positions, including Assistant Secretary for Policy at the U.S. Department of Energy; Secretary of Environmental Affairs for the Commonwealth of Massachusetts; Commissioner of the Massachusetts Department of Public Utilities; Executive Director of the Massachusetts Energy Facilities Siting Council; Senior Economist at the Massachusetts Executive Office of Energy Resources; and Assistant Professor at the University of California at Irvine. She has authored numerous articles and reports on energy markets and policy issues, and has testified before the Federal Energy Regulatory Commission, state public utility commissions, and congressional committees. She serves on numerous corporate and non-profit boards of directors. She has assisted in the siting of numerous generation and transmission facilities. She has a Masters degree and Ph.D. from Cornell University.

Paul J. Hibbard
Senior Consultant — Lexecon, Inc.

Paul Hibbard, a Senior Consultant at Lexecon, specializes in economic and environmental policy consulting related to the energy industry, particularly electricity, and focuses on market structure and competitive analysis, public policy, and environmental regulatory analysis and policy. Mr. Hibbard recently joined Lexecon after more than ten years developing state energy and environmental policy in Massachusetts. Most recently, he worked in the state's environmental agency with responsibility for developing policy positions and regulations governing state compliance with the Clean Air Act, state-based advanced emission control requirements on the highest-emitting power plants, and administration of state portfolio standards such as information disclosure and renewable and emission performance standards. Prior to that, he worked at the public utility commission in Massachusetts, focusing on industry restructuring, stranded costs, NEPOOL structure and reform, economic valuation of power plant environmental impacts, company-integrated resource management and conservation plans, and nuclear plant decommissioning cost estimates. He has a M.S. in Energy and Resources from the University of California, Berkeley, and a B.S. in Physics from the University of Massachusetts, Amherst.

Executive Summary

California's electricity crisis has been under the microscope ever since prices shot up in mid 2000 and the state's consumers began to see their power supplies threatened. Early on, the lack of new electric generating capacity was highlighted as a fundamental force driving the spikes in energy market prices and the drop in power system reliability. The conventional wisdom early on - at least in the media - faulted a sluggish siting process and excessively strict environmental regulations in the state as having contributed largely to California's recent generating capacity crisis.

In this paper, we review the California siting process. In particular, we evaluate the role of California's siting procedures with a focus on (1) their role in the California energy crisis; (2) the effectiveness of California's recent siting "reforms," in terms of their impact on power plant siting, environmental protection, and public participation; and (3) how the California process compares against siting practices implemented in other selected states. Our research included a review of the laws, executive orders, rules, and procedures governing the California Energy Commission's ("CEC's") traditional 12-month siting process, and the special expedited review processes the CEC adopted that have allowed for 6-month, 4-month, and 21-day reviews for certain types of power plant proposals; a number of interviews with California state agency representatives, developers, and process intervenors; and a survey of other states with special energy facility siting review procedures.

A recent report from the California State Auditor ("Auditor") provides a comprehensive review of the administration of the traditional CEC siting process. The Audit analysis demonstrates that since 1990 the California siting process has been administered in a relatively efficient and timely manner. But the time period reviewed by the Audit ended just as the new expedited review processes went into effect a year ago. Therefore, we placed special attention on the new siting processes, and evaluated their performance against past practice in California as well as the stated goals of the siting process itself.

Like the Auditor, we conclude that the CEC siting process was not a primary – or even a meaningful – impediment to the addition of generation capacity in the state throughout the 1990s. There was a lack of energy facility proposals before the CEC that was the result of the uncertainty in utility power plant investment recovery and market rules that was introduced by the state's investigation into electric industry restructuring, and sustained at least until the enactment of California's restructuring act, AB 1890, in September 1996.

In short, we conclude that California's siting process was not broken, and that indeed recent efforts to expedite siting reviews still further have gone too far and should not be continued or adopted again in the future. We reach that conclusion even recognizing that in the past year the CEC has moved thousands of megawatts of capacity through the siting process. A recent CEC study evaluating the 21-day and 4-month review processes similarly concludes that these processes should not be revived. We think that even the 6-month process should not be continued except under extraordinary conditions. The traditional 12-month siting process of the CEC is in design and practice an effective mechanism for the timely siting of major energy facilities in the State of California. This process compares favorably in this respect with the procedures established in many other states. The standard CEC siting process not only is relatively fair and efficient, but is also very effective at encouraging and responding to meaningful public input, and contains a comprehensive review of potential environmental impacts. In this regard, it employs most of the effective mechanisms applied in other states, as well as some mechanisms not typically found in other state siting procedures.

While the traditional siting process appears to be basically sound, there is reason to be concerned that continued or extended implementation of the expedited siting processes, particularly the 21-day and 4-month approvals, may unnecessarily jeopardize California's long-standing commitment to meaningful public input and environmental protection. While the 6-month process may also strain these goals to some extent, the new realities of the competitive electric industry make it important to consider ways to shorten the state's traditional 12-month siting procedures without compromising environmental and public interest goals.

Drawing on our review of California's and other states' siting procedures, we highlight several "best practices" in state siting processes that we believe would be necessary in an expedited (i.e., shorter than the standard 12-month) review to maintain an effective, environmentally sensitive, and democratic process in California. These best practices include: meaningful inter-agency coordination; establishment of real deadlines for reviews; clear and enforceable filing requirements and guidelines for substantive filings with complete information; consistent and clear standards of reviews from project to project; focus on environmental impacts, allowing the market to determine need to the greatest extent possible; providing a back-stop state override authority over local permitting decisions where necessary and appropriate; clear environmental data requirements, including with respect to cumulative impacts; clear expectations regarding mitigation of environmental impacts; and provision of a procedural schedule and other forms of information and funding assistance to support meaningful public participation in a manner that will allow complete review within one year. Some of these "best practices" are part of California's siting process; others come from other states. This set of recommendations is applicable to state siting procedures in states to support reliable power supplies in competitive wholesale markets, regardless of whether a state has adopted a retail open-access regulatory structure.

INTRODUCTION

Background

California's electricity crisis has been under the microscope ever since prices shot up in mid-2000 and the state's consumers began to see their power supplies threatened, and in some cases, blacked out. Very few, if any, of California's policies related to the electric industry have escaped exhaustive scrutiny since things began to go very wrong in 2000. And very few policies have received as much early condemnation as the state's power plant siting process. Early on, the lack of new electric generating capacity was highlighted as a fundamental force driving the spike in energy market prices and the drop in power system reliability.[1] Many seized the opportunity presented by the crisis to cast at least part of the blame on the California's process for moving a proposed power plant from concept to construction.

Since 1974, when the California legislature established in effect a one-stop energy facilities siting process for all major power plants proposed in California, reviews of power plants have been carried out by the state's Energy Commission. The CEC process encompasses not only site approval but also nearly all of the necessary state, regional and local approvals required for a facility to begin construction. For most power plants, this state siting process - until recently - has taken roughly a year.

That fact flies in the face of the conventional wisdom early on, which faulted a sluggish siting process and excessively strict environmental regulations in the state as having contributed largely to the state's recent generating capacity crisis. These assertions have not held up under either a simple review of the economic and industry context in the 1990s, or a comprehensive analysis of the specific underlying data related to power development projects over this period. Indeed, while one can find notorious examples of regulatory/siting problems, it is difficult to find a consensus that something was fundamentally wrong with the siting process in the state. Moreover, a review of the effort necessary to obtain approvals for similar facilities in other states reveals that the comprehensive process in California is superior to most in striking an appropriate balance between minimizing the time for facility siting and permitting review, while also protecting the environment and respecting the rights of local towns, individuals and interest groups to participate in and contribute to the site evaluation process.

Nonetheless, as the Governor, Legislature and regulatory agencies in California searched for solutions to the crisis, several changes were introduced into the power plant siting and licensing process. Some of these were short-lived; others have or will soon sunset; and some may be permanent. The fundamental goal of these changes was not to address perceived problems in the siting process, but rather to quickly restore the balance of electricity supply and demand in California by adding generating capacity to the power grid as soon as possible. But a question remains as to whether permanent changes have been or will be made that will upset the balance California had achieved in its facility siting and permitting process, constrain opportunities for public input, and jeopardize the state's goal of responsible environmental stewardship. At a minimum, the actions that California took to address urgent capacity needs in the context of industry restructuring may reveal an emerging schism between competitive wholesale electric markets and energy facility siting review procedures – namely, the apparent conflict between the need for generating capacity markets to more quickly respond to electricity price signals on the one hand, and the continuing need for orderly, democratic procedures for the review of major facility siting proposals.

Purpose of the Paper

In this paper, we review the California siting process and its implications for the siting of new electric generating capacity in the context of a restructured industry. Our evaluation focused on (1) the role of California's siting procedures in the California energy crisis; (2) the effectiveness of California's recent siting "reforms," in terms of their impact on power plant siting, environmental protection, and public participation; (3) what the events in California can teach us about siting energy facilities in a competitive industry structure; and (4) how the best practices of the siting processes in California and other selected states can be used to improve siting procedures in California and elsewhere. Our research included a review of the laws, executive orders, rules, and procedures governing the CEC's traditional 12-month and special expedited processes that allow for 6-month, 4-month, and 21-day reviews for certain types of power plant proposals; a number of interviews with California state agency representatives, developers, and process intervenors; and a survey of other states with special energy facility siting review procedures.

A recent report from the California State Auditor provides a comprehensive review of the administration of the traditional CEC siting procedures established in the Warren-Alquist State Energy Resources Conservation and Development Act ("Warren-Alquist Act," or "Act").[2] The Audit analysis demonstrates that since 1990 the California siting process has been administered in a relatively efficient and timely manner. But the time period reviewed by the Audit ended just as the new expedited review processes went into effect. Therefore, we placed special attention on the new siting processes, and evaluated their performance against past practice in California as well as the stated goals of the siting process itself. Finally, we review some of the siting practices of other states to help evaluate the various procedures currently in place at the CEC, and to identify a set of best practices in siting power plants in different states.

Summary of Conclusions

In short, we conclude that California's siting process was not broken, and that recent efforts to expedite siting reviews still further should not be continued in the future.[3] In the past year, as it has moved thousands of megawatts of capacity through the system, the process has clearly frayed from the perspectives of democratic principles, due process rights and environmental stewardship. The traditional 12-month siting process of the CEC is in design and practice an effective mechanism for the timely siting of major energy facilities in the State of California. This process compares favorably in this respect with the procedures established in many other states. The standard CEC siting process not only is relatively fair and efficient, but is also very effective at encouraging and responding to meaningful public input, and contains a comprehensive review of potential environmental impacts. In this regard, it employs most of the effective mechanisms applied in other states, as well as others not typically found in other state siting procedures.

Like the Auditor, we conclude that the CEC siting process was not the primary – or even a meaningful – impediment to the addition of generation capacity in the state throughout the 1990s. There was a lack of energy facility proposals before the CEC that was the result of the uncertainty in utility power plant investment recovery and market rules that was introduced by the state's investigation into electric industry restructuring, and sustained at least until the enactment of California's restructuring act, AB 1890, in September 1996.

While the traditional siting process appears to be basically sound, there is reason to be concerned that continued or extended implementation of some of the expedited siting processes put into effect just a year ago may unnecessarily jeopardize California's long-standing commitment to meaningful public input and environmental protection, and any effort to reinstate the 21-day and 4-month processes should be viewed with great caution. While the 6-month process may also strain these goals to some extent, the new realities of the competitive electric industry make it important to consider whether state siting procedures can be expedited without compromising environmental and public interest goals.

At a minimum, California and other states should review siting procedures with an eye towards avoiding the need to repeat the drastic actions taken in California in response to the crisis. Drawing on our review of California's and other states' siting procedures, we highlight some specific examples of state siting practices that we believe would be necessary in an expedited (i.e., shorter than the standard 12-month) review to maintain an effective, environmentally sensitive, and democratic process in California. Since California's industry structure, environmental concerns, and need for public involvement are similar to those of other regions in the US, our recommendations are applicable to other states' siting procedures as well.

Overview of the California Siting Process

Background: CEC's role and process

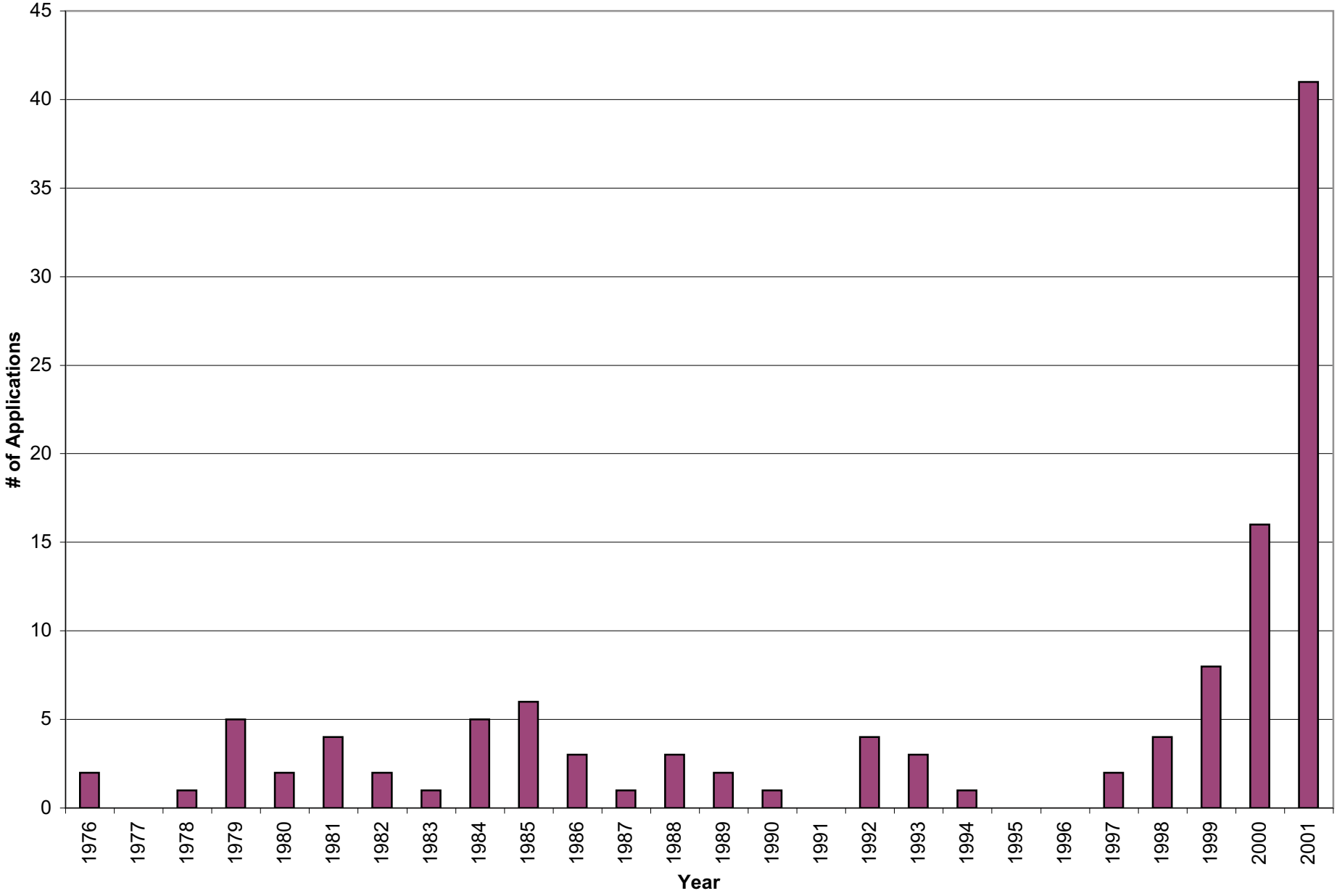
The CEC administration of energy facility siting reviews spans a quarter century, beginning with the passage in 1974 by the California legislature of the Warren-Alquist Act at the time of the nation's first energy crisis. Among other things, the Act created the California Energy Commission, and conferred upon it the exclusive authority to certify the siting of new thermal power plants of 50 megawatts ("MW") or more.[4] A CEC approval represents an omnibus permit for nearly all non-federal permits required before a new plant goes into construction.[5] As part of the CEC process, the other agencies involved review the application and make recommendations to the Commission as to whether the application satisfies the permitting requirements of these other agencies. In addition, the Commission's standard siting process meets the requirements under the California Environmental Quality Act ("CEQA"), thus eliminating the need for the preparation and review of a separate Environmental Impact Report for these large power plants. In essence, the Act and Commission rules and procedures create a one-stop siting process for all major power plants in the state.

For nearly two decades the Commission's review of power plant proposals took place in the context of a traditional utility planning model, involving up-front determinations of the need for a new plant's capacity given the utility's obligation to serve existing and new load; evaluation of the proposed facility versus alternative supply (and sometimes demand) alternatives; and reviews of the appropriateness of the environmental and land-use impacts of the new plant.

Figure 1 provides a summary of the number of facilities filed annually with the Commission since its inception. The chart reveals both the relative consistency in the number of applications filed over time, and the departure from this trend in the last ten years.

In the early nineties, regulators at the federal and state level began to accelerate a move away from the traditional utility planning model to one characterized by greater reliance on market forces in the generation sector of the industry. During the nineties, over 10,000 MW of capacity was proposed in California, and the Commission reviewed all applications up through September 2000 under its standard 12-month review process, described below. (In a later section, we discuss the expedited review procedures that have been in place since September 2000.)

FIGURE 1
Power Plant Applications Filed with CEC
(By Year of Filing)



Source: CEC Website as of January 31, 2002. See Attachment 2.

The CEC's 12-Month Review Process

The Commission's 12-month siting process involves three basic phases: pre-filing and data adequacy; staff, agency and public review; and hearings and decision. Each of these phases provides opportunities for public participation and input, as described below.

Pre-Filing and Data Adequacy Phase

The standard process for siting review begins with the filing of an Application for Certification ("AFC") with the Commission, which commences a formal process leading to a CEC decision on the proposed project. However, even before an AFC is filed, the CEC staff encourages developers to engage in an optional and informal pre-filing process to learn about the siting process, initiate contacts with state and local agencies, and scope out potential issues in the case. The filing of the AFC ends the informal pre-filing process, and initiates the Data Adequacy ("DA") phase of Commission review. The purpose of this phase is to enable the CEC to determine whether the data presented by the applicant as part of the filing are adequate for the Commission and for other state and local agencies[6] to commence a formal review of the project. The staff and Commission have 45 days to determine whether the data are adequate. If the Commission formally finds that they are not adequate, the applicant receives a deficiency notice and may refile to address the deficiencies. Therefore, in order to complete the DA phase without significant delays, developers must be very familiar with the Commission's and other agencies' data requirements well in advance of making the filing.

Staff, Agency, and Public Review

Once an AFC is found to be data adequate, the Commission formally accepts the AFC and the CEC's 12-month timer begins.[7] CEC staff participates as a party to the docket, and conducts a comprehensive independent review of the application to determine if it meets Commission requirements with respect to environmental, cultural and land use impacts.[8] The Staff presents its analysis to other parties through publicly-noticed workshops, a Preliminary Staff Assessment ("PSA") and a Final Staff Assessment ("FSA"), the last of which is completed roughly 7 months into the process. Concurrently, other state, regional, and/or local agencies conduct their reviews to determine whether the filing complies with their rules and standards, with the goal of presenting findings to the CEC within 180 days of when the application is deemed complete.

Hearings and Decision

The Commission bases its decisions on formal record evidence, which includes the results of the FSA, the conclusions of additional agencies, and the testimony and comments of interested parties and the public. CEC guidelines require the staff to file the FSA within 210 days following acceptance of the Application, with evidentiary hearings held between 10 and 30 days later. Within two months after completing evidentiary hearings, the Commission subcommittee assigned to this project prepares a Proposed Decision, which is released to the public for review and comment, and is revised as appropriate thereafter. Approximately a year following the date the application is accepted, the full Commission is expected to render a decision. The Commission may accept the (revised) Proposed Decision, reject it, or accept it with modifications. Construction may commence upon receipt of full Commission approval.[9]

Public Participation

Throughout the site review process, public participation is encouraged and assisted in a number of ways - through the agency's notice, informational meeting, and public hearing requirements; by workshops held by the staff and applicant throughout the analysis phase; through the ability to intervene as a formal party to the agency's proceeding; and by the efforts of the CEC Office of the Public Advisor. The Public Advisor participates in every case to advise and assist the public, and to encourage full and effective public participation in the Commission's proceeding.[10]

Experience with the California Siting Process Since 1990

Results of the Audit

As noted above, early evaluations of the California electricity crisis suggested that the California siting process introduced an unjustifiable drag on the timely addition of generation capacity to the California market, and thereby contributed to the spike in energy prices and reduction in power supply reliability. In August, 2001, the California Bureau of State Audits completed a comprehensive quantitative and qualitative review of experience with the CEC's process for siting energy generation facilities since 1990, in response to a request by the California Joint Legislative Audit Committee. Although by August 2001 it was already recognized that the CEC's facility siting process was not a likely cause of the crisis,[11] the Audit clearly buries any remaining doubts.

To evaluate the siting process in California, the Auditor analyzed the CEC's database of all power plant applications since 1990, along with reviewing individual cases in reference to key milestones in the Commission's siting process (including discovery, analysis, hearing, and decision steps, as well as total time it took to process the application). The Auditor reviewed the data to ascertain the reasons for any delays, withdrawals of applications, or rejections. The Auditor also compared the form and results of California's siting procedures with several other states.[12]

The Audit revealed the following characteristics of the CEC energy facility licensing process in the 1990's:[13]

- The Commission received 36 applications for approval of proposed power plants since 1990;
- From 1991 to 1995, investor-owned utilities submitted only one application for siting approval, and a significant increase in siting applications did not take place until 1997, after deregulation in the state was approved;
- 13 of the 36 applications were withdrawn by project developers;
- The remaining 23 applications were all approved by the Commission, with an overall average approval time of 14 months – 2 months beyond the Act's 12-month standard;
- Taking into consideration the time period for data adequacy review, the overall time for Commission review of applications averaged 15 months (compared to the combined 13-month standard authorized for these two phases);[14]
- These overall timelines in the CEC process compare favorably to the five other states surveyed;
- 10 of the 23 CEC approvals were issued at least 30 days beyond the 12-month standard timeline, and in each of these cases, applicants failed to submit in a timely manner all of the information required by the Commission;
- In 7 of these 10 cases, other jurisdictional state and federal agencies failed to process approvals promptly;
- For 3 of these applications, delays in approval were due at least in part to objections raised by other parties to the proposed sites.

The results of the Audit's analysis, along with our own research which corroborated and complemented those results, reveal a siting process in California with the following features. The total time required to go from filing an application with the state to receipt of all state approvals has effectively met regulatory schedules, lasting little more than a year. In comparison with other states whose siting processes do not encompass the issuance of all other state, local and regional permits, California's combined siting/permitting

process has had a reasonable time frame. Potential delays in receiving siting approval can be greatly reduced by applicants filing applications with complete and adequate data for review by the Commission and other state and local agencies.[15] New or non-standard emission-related issues can introduce significant delays and make it difficult for other agencies' reviews to fit neatly within the coordinated CEC process. And the specter of generation deregulation and the uncertainty about investment recovery rules and opportunities – and not the Commission's procedures – was the most likely impediment to the siting of new generation in the 1990s.

The Audit suggests that there is a limited subset of critical project attributes that usually determines the nature and extent of agency review and public response, as well as the time it will take to obtain necessary approvals. The first, most important and most obvious example is location. Nearly all substantive issues, the extent of staff analysis, and the ultimate level of public involvement are critically tied to the inherent attributes of the facility vis-à-vis the proposed site. Site location determines biological and species impacts; the potential need for a change in property zoning at the local level; water use and impacts; public health risks; the importance of traffic, noise and visual concerns both during plant construction and ultimate operation; the neighboring land uses and populations, including the absolute number and the cohesiveness of the public involved in the site review process; and the economic value, transmission upgrade expense, and reliability impacts of integrating plant operation with the overall bulk power and fuel delivery systems. The experience in California reveals that site location is the strongest determinant of siting success, and the primary factor affecting the expense and duration of the siting process. The interaction of a plant proposal and its location is the essence of the siting process.

Further, the Audit implies that the next most important characteristic of a project involves the mitigation mechanisms proposed to address environmental impacts. Take for example two projects that are identical in location, technology, and every other way save one: one facility proposes to install a new air emission control technology, while the other mitigates emissions with the control technology recently approved by the air district as California Best Available Control Technology for a similar emission source. Even if the ultimate emission rates are identical, the district will likely need to undertake a comprehensive engineering evaluation of the new technology proposed by the first facility to guarantee that the expected emission reductions are real and will be maintained over time. The CEC may also need to review secondary impacts of new liquid or solid waste streams, or public health risks associated with the new emission control technology, adding time to its own analysis. It is precisely this type of first-time analysis of a "break-through" technology that can make it inherently difficult for air districts to complete licensing reviews and file their reviews in time to be incorporated into the normal timeframe of the standard 12-month CEC site application review.

These siting and site-related features of the process were indirectly pointed to by the Audit. But the scope of the California Auditor's review was explicitly limited to the evaluation of the efficiency and performance of California and siting procedures with respect only to the time it took to move proposals from application to construction. In this respect, the Audit found little evidence that the procedures and policies of the CEC (and related state and local agencies) introduced unwarranted delays into the power plant development and construction process.

However, moving expeditiously from proposal to construction is only one of the objectives of the siting

and permitting process established by the Warren-Alquist Act. Evident in the Act, and consistently reinforced through state laws, regulations, and policies, is California's strong commitment to (1) environmental protection, (2) energy conservation, (3) the development of renewable resources, and (4) the orderly administration of agency review procedures in a full, open process with meaningful opportunities for public review and input.[16] A comprehensive review of how the CEC process meets the multiple objectives of the Act and state policy would also need to review the CEC's adherence to state energy, economic and environmental policies, as well as due process rights.

Role of Siting Procedures in the California Energy Crisis

As with any market commodity, the balance between electricity supply and demand in a deregulated market will have a profound influence on product availability and price. This balance – or the lack thereof – was a significant factor leading to the electricity crisis in California. Other factors also contributed, including problems in the new market structure and inability of most purchasers to enter into long-term contracts, fuel price and availability, transmission infrastructure, and disinvestment in energy efficiency and renewable energy sources.

Clearly though, the imbalance of electricity supply in terms of installed capacity relative to demand in California beginning in early 2000 was a significant factor leading to reductions in power system reliability and drastic increases in electricity prices. What is less clear is the importance of the various factors that contributed to this supply/demand imbalance, and the extent to which they were driven by regulatory structure or market participant actions.

Factors that contributed to the supply/demand imbalances in the California energy market, or that otherwise exacerbated the price or reliability events in this period, include short-term actions or situations such as (1) possible physical and/or economic withholding of generating capacity in real time by plant owners in order to artificially increase the short-term price for electricity and increase company profits; (2) a severe drought-induced reduction in available hydroelectric generating capacity throughout the West; (3) forced generation outages at levels exceeding statistical expectations or due to financial credit problems associated with the electricity crisis; (4) reduced investment in energy efficiency and load management; (5) lack of a capacity requirement along with a market for installed or operable capacity; (6) unexpected reductions in gas transportation capacity and a sudden spike in the cost of gas delivered to electric generating stations; (7) real-time power delivery constraints as a function of generation availability and dispatch, and structural weaknesses in the existing transmission system; and (8) an imbalance in the market for NOx emission reduction credits in the South Coast Air Quality Management District.

The supply/demand balance was of course influenced by longer-term factors as well, including; (1) the addition of virtually no large-scale generating capacity in California between the early nineties and completion of the State's restructuring process;[17] and (2) steady growth in electricity demand generally, and very high growth in several of California's neighboring states.[18]

Some have suggested that the first long-term factor – the lack of new capacity additions through the mid-nineties – could be traced to overly rigid, burdensome, bureaucratic, or inefficient government requirements and procedures for obtaining all necessary approvals to begin construction of a new power plant in the State.

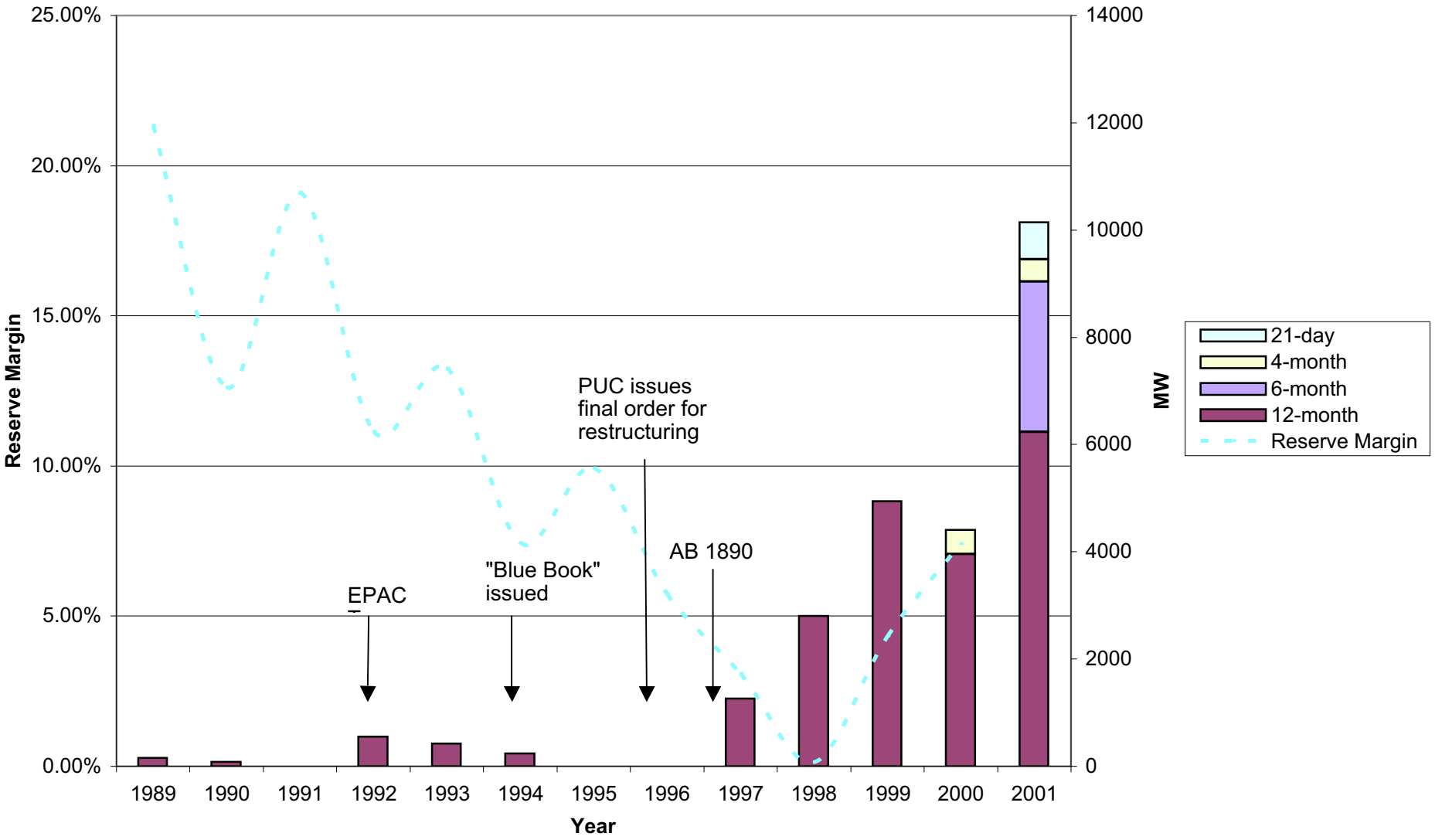
The conventional conclusion was that government siting procedures are to blame, at least in significant part, for the high prices and low quantity of power supply during much of 2000 and 2001 in California.

It is quite difficult to sort out the importance of each of the short- and long-term factors affecting supply and demand. It appears obvious, however, that siting procedures – including state and local procedures established to enable a full analysis and public input on the potential impacts of new large energy facilities – did not play an important role. This is not to say that an apparent lack of sufficient generation (or demand-side resources, for that matter) did not play a role – clearly, the addition of several hundred or more MW of new generation throughout this period would have greatly attenuated the price and reliability impacts of the past two years. However, what has become clear is that the lack of new generating capacity has little to do with the government regulations and procedures established for the review of new energy facility proposals, and more to do with an apparent chronic aversion to investment in new generation on behalf of investor-owned utilities and independent power developers amidst the uncertainty created by the dramatic transformation of California's electric industry through the mid-nineties.

It is not surprising that the California Public Utility Commission's restructuring of the industry would deter new investment in generating capacity. By definition, deregulation of the generation sector greatly increased the risk that utility investments in existing capacity or long-term contracts for power purchases - let alone new investments in power plants - would go unrecovered. Beginning at the latest with the issuance of the CPUC's Blue Book[19] in 1994, economically rational behavior would dictate a wait-and-see attitude by utilities and independent power developers. Even if a utility believed at the time that legal precedent supported recovery of stranded costs, this was a controversial and by no means assured conclusion. In this environment, it would be rational also not to exacerbate the potential stranded cost problems by adding new megawatts of generating capacity and thus increasing new investment exposure. Also, utilities were wary of signing new long-term power supply contracts.[20] Any reduction in the market for long-term power supply contracts would also deter new generation investment in the state by independent power producers.

The pattern of power plant applications that were filed at CEC in the 1990s is consistent with this interpretation of utility behavior. Figure 2 shows the total capacity of applications filed before the Commission in the 1990s, annotated to identify major state and federal policy events impacting the financial conditions for new generation investment in California. While in the early nineties, estimated reserve margins[21] in the state hovered between 10 and 20 percent (providing a "need-based" disincentive to utility investment in new generating capacity additions), by 1994 these margins had dipped below 10 percent, and continued to drop.

FIGURE 2
Capacity of Applications Filed by Year (Excluding Those Withdrawn or Suspended)
v. Reserve Margin



Sources of Filing Data: CEC Website as of January 31, 2002. See Attachment 2.
Reserve Margin estimated as (total capacity - peak summer demand)/(peak summer demand);
Data from NERC ES&D 2001 for the California-Southern Nevada Power Area.

Based on a review of the industry context and economic factors influencing new generation facility investment in the 1990s, the quantitative analysis done by the Auditor with respect to the siting process, and our independent analysis of siting process goals, administration, and experience, we come to the following conclusions related to the potential impact of state permitting and siting procedures on the supply/demand situation in California in the late 1990s:

- Interest in the development of new generation capacity in California went into hibernation in the early- to mid-nineties due in large part to the uncertainty surrounding investment recovery that was introduced by the state's move to deregulate the generation sector of the industry and institute retail open access.

- An insignificant amount of new major power plant capacity was proposed by utilities or non-utilities during this period, although over 1400 MW of small-scale, renewable projects was added.

- Siting and permitting requirements and procedures did not prevent the filing of new facility proposals.

- Siting and/or permitting procedures generally did not significantly or unreasonably delay the construction of new energy facilities.

- Once the (then-) future structure of the electric industry in California seemed to be resolved, many applications for new major electric generating facilities were quickly filed at the Commission by independent power developers.

Expedited Siting Procedures in Response to the California Energy Crisis

Overview

When the price spikes and the specter of blackouts loomed large in 2000, there began a tremendous amount of political pressure on government institutions in California to act. Given the severity of the impacts of volatile prices and unreliable power on residents and businesses in the state, and the appearance that there was no immediate end in sight, the Legislature, the Governor and energy-related agencies reacted to address the crisis. One major goal was to bring on line new electric generating capacity as soon as possible. Whether siting and permitting procedures played a role in bringing on the crisis was less important than how such procedures could be changed going forward to add generation capacity in time to avoid future supply-related curtailments and to mitigate electricity price impacts.

Beginning in September, 2000, a number of new laws, gubernatorial executive orders, and agency actions began to be rolled out to address both the underlying structural problems leading to and the economic impacts of the crisis.[22] These changes included the institution of a 21-day emergency approval process for proposals for peaking power plants that could be filed quickly and brought online by September 30, 2001; a 4-month siting approval process for peaking capacity that could be brought online by August, 2002; and an expedited 6-month facility siting process for any other generating facility proposals where the CEC could conclude there was substantial evidence that the project would not cause significant adverse impacts. Figure 3 compares the time requirements for key components of each of the siting processes.

The legislation, executive orders, and CEC guidelines establishing these new processes generally include language to the effect that the expedited siting procedures should not lose sight of the need to protect the environment and to include a full hearing on controversial sites, technologies or issues. While this might have been easier to accomplish under the 6- and 4-month processes than the 21-day process, all three programs nonetheless included a common set of requirements for any proposals to qualify to be reviewed under the Commission's expedited processes:

- Proposed facilities had to have no "significant adverse impact" on the environment or on public health and safety or, in the case of the 21-day process, pass a "fatal flaw" analysis.

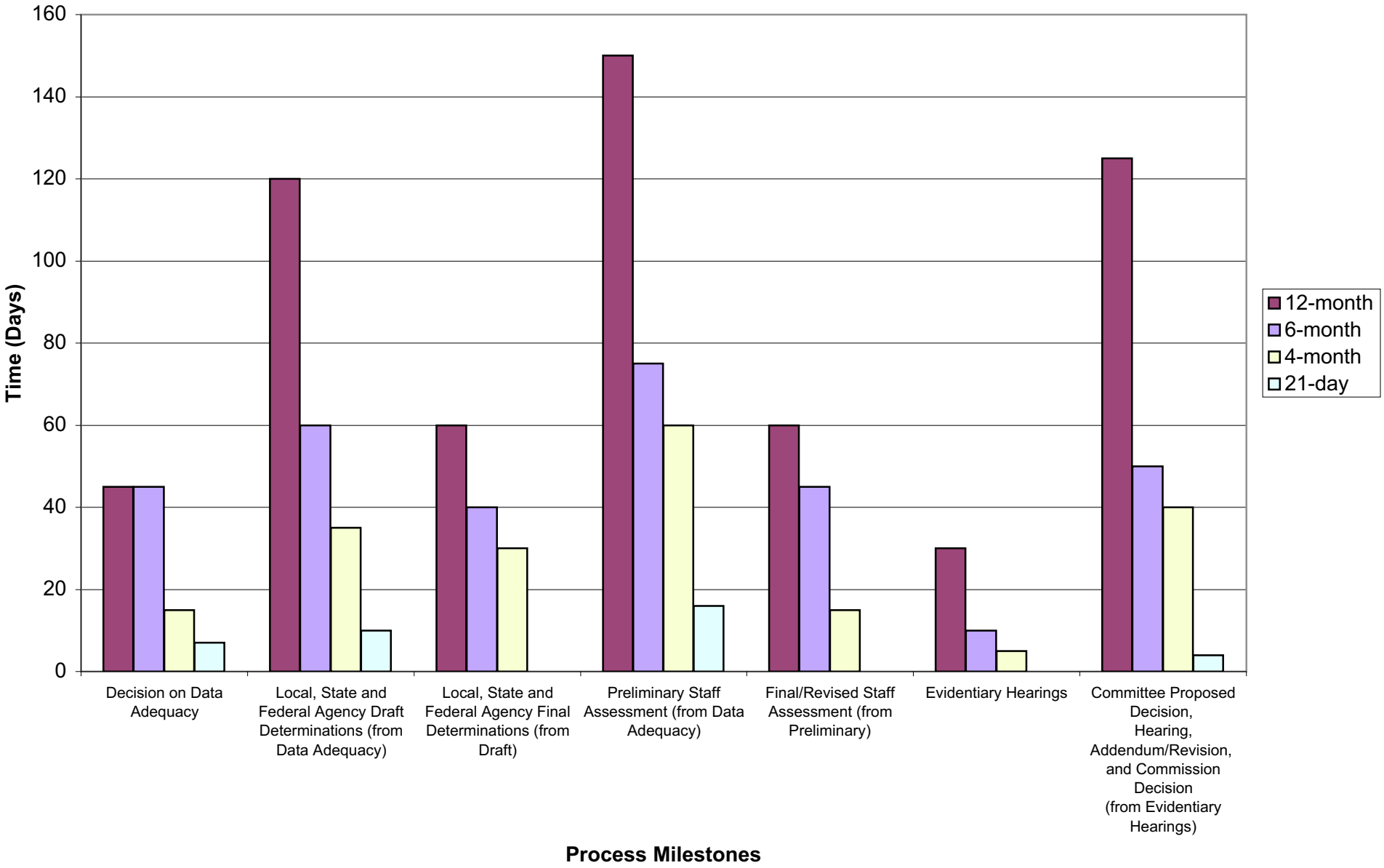
- Proposed facilities could not have a significant adverse impact on the transmission grid or power system reliability.

- Proposed facilities had to comply with all local, state, and federal laws and standards.

- The developer had to have control of the site and a contract with a general contractor for a supply of skilled labor adequate to construct the facility.

Under the 4- and 6-month expedited siting procedures, if the CEC determined that a facility would have no significant unmitigated environmental impacts, then the CEC could conduct a "Mitigated Negative Declaration" type of environmental analysis, rather than a CEQA Environmental Impact Review process. For the 21-day emergency permit process, project reviews were exempt altogether from CEQA, with staff conducting only a "Fatal Flaw" analysis.[23] From the standpoint of quality of environmental review and opportunity for public input, the important difference has been in the time allotted for public review and hearings, CEC staff analysis and Commission deliberation, and the submittal of final comments by other state and local agencies. These substantial differences are presented in Figure 3.

Figure 3
Estimated Review Timelines under the 12-Month, 6-Month, 4-Month, and 21-Day Siting Processes



Sources: CEC, *Examples of Energy Facility Licensing Schedules,* and *California's Expedited Power Plant Permitting Processes.* http://www.energy.ca.gov/sitingcases/index.html.

Finally, the expedited siting approval processes were all established as short-term solutions to the generation supply emergency in the state. All three processes (21-day, 4-month, and 6-month) were set to expire within two years after they were put in place.[24] While the sunset provisions attached to these procedures may limit the difficulties and controversy associated with shortening the energy facility siting process, it suggests a careful consideration of how the approach to energy facility siting may be adapted to ensure that the state does not feel compelled into extending these mandates or returning to them at a later date.

Attachments 1 and 2 contain more detailed information on the laws, policies and features of California's siting procedures for major power plant projects.

21-Day Emergency Approval Process

In early 2001, Governor Gray Davis issued a number of Executive Orders that, among other things, directed the Energy Commission to use its emergency power plant permitting authority to permit new peaking power plants that could be online by September 30, 2001. The CEC describes peaking plants as those that typically "…are simple-cycle power plants that can be constructed in a relatively small area, do not require water supplies for cooling, and can readily be connected to the existing transmission and natural gas system."[25] In response to the Governor's directive, the CEC established a 21-day approval process for eligible peaking facilities, and received 15 applications for a total of 1,319 MW since March, 2001.

A CEC license issued under the 21-day emergency permit program is good for the life of the project if it operates under contract with the California Independent System Operator ("CAISO") or the California Department of Water Resources ("DWR"), and the project owner can verify, at the end of the term of the contract, that the project (1) meets Best Available Control Technology ("BACT") requirements and has all necessary emissions offsets; (2) is a permanent facility with control of the site; and (3) is in compliance with all other CEC conditions. If the project is approved without a contract with the CAISO or DWR, its license expires in three years, but can be recertified as a peaking, combined cycle, or cogeneration plant after further CEC review.

A number of extraordinary measures were built into the process to ensure rapid review under the emergency permit process, including the following:

- Application completeness were determined by the staff without full Commission review;
- Projects were exempt from CEQA, and were subject instead to a fatal flaw analysis by the CEC;
- All local, regional, and state agencies had to provide final recommendations within 10 days of when the application was deemed complete;
- Public review was limited, and involved at most two hearings on the proposal.

The 21-day emergency permit process expired at the end of 2001, but while it was in effect, it led to the rapid approval of a number of power plant proposals. As can be seen in Figure 4, a total of 1,319 MW were filed under the emergency permit process since March 2001. It is generous to say that the level of public and environmental review under the emergency permitting program is not ideal, and the strain it put on the CEC and other state agencies has become quite severe.[26] While the 21-day process clearly would not be desirable or sustainable in the long run,[27] it has certainly met its stated purpose of adding electric

power generation immediately in response to the crisis. Of the total capacity filed for approval, 265 MW actually came on line by 9-30-01, as required by the Executive Order establishing the 21-day process. Anecdotal evidence indicates that many of these approved plants (all of which were simple cycle technologies) were expected to operate in a relatively high percentage of hours, rather than only during peak hours.

4-Month Approval Process

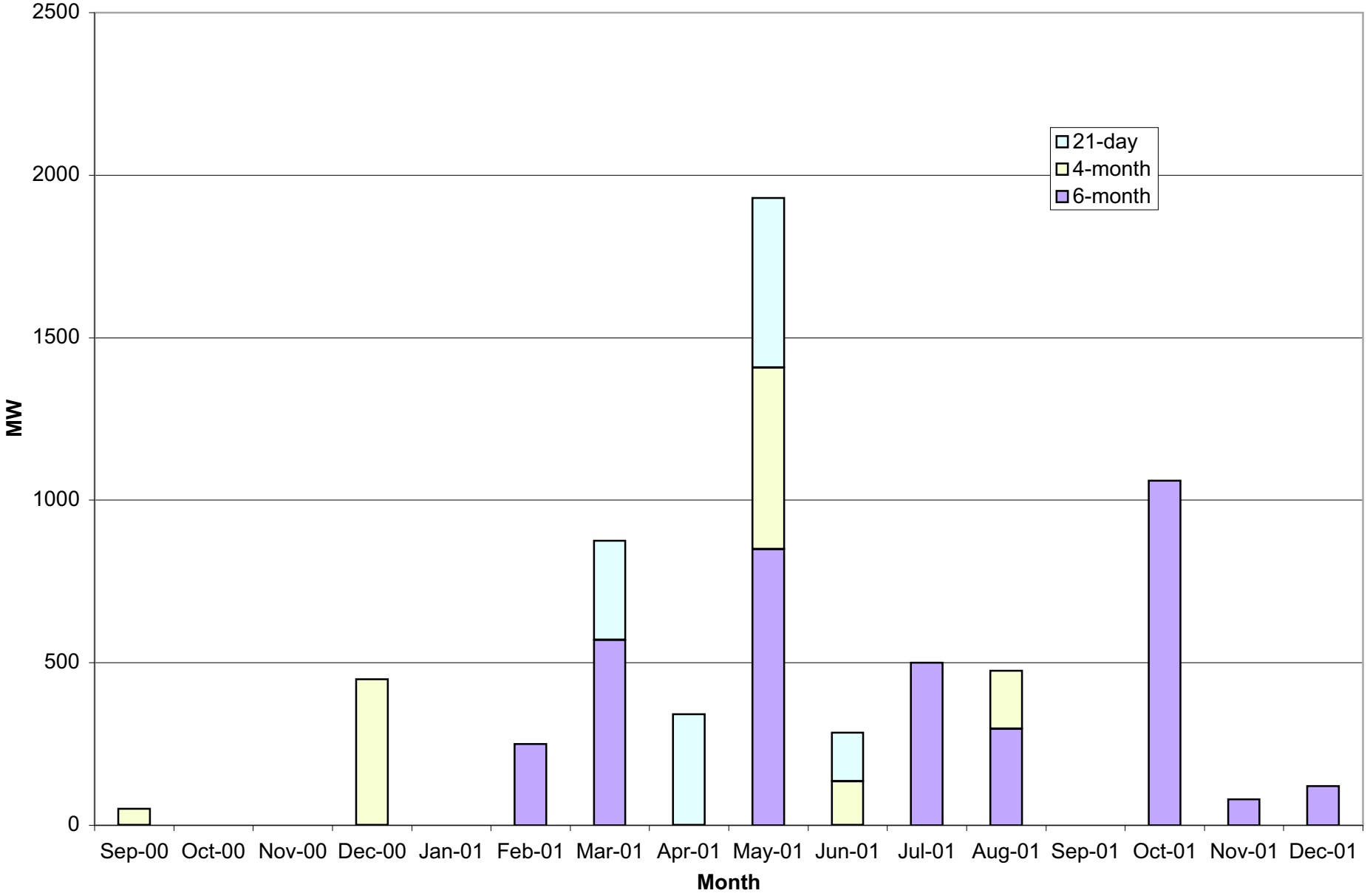
The 4-month siting process, originally established by Assembly Bill 970, has been limited to proposals for simple cycle thermal power plants that are not a "major stationary source"[28] and could be brought on line by December 31, 2002. In order to qualify, such proposals had to be deemed adequate by December 31, 2000. A CEC license issued under the 4-month permit program expires in three years, unless the applicant demonstrates before then that the plant will be modified, replaced, or removed within a period of three years with a combined-cycle plant.[29]

To a large extent, the filing requirements and procedural reviews under the 4-month process are the same as those of the 12-month process. However, the Commission's targeted deadlines for completing nearly all stages of the review are extremely compressed. For example, the requirements are that:

- Decisions on data adequacy be made within fifteen days of the filing of an application;
- All local, regional and state agencies provide final recommendations within 65 days of when the application is deemed complete;
- Staff complete its analysis within 75 days.

Applications could be accepted under the 4-month permit process until December 31, 2001. As can be seen in Figure 4, there have been 7 facilities, totaling 1,455 MW filed under the 4-month process since March 2001, and there is a total of 315 MW currently under review.

FIGURE 4
Capacity of Power Plant Applications Filed with the CEC, by Permitting Process



Source: CEC Website as of January 31, 2002. See Attachement 2.

6-Month Approval Process

Like the 4-month process, the 6-month siting process was established in Assembly Bill 970, in September, 2000. Unlike the 4-month or 21-day process, the 6-month process is open to all power plant types, subject only to the requirement that the Application contain sufficient information for the Commission to make an informed judgement that there is substantial evidence that the project will not have a significant unmitigated impact on the environment or the electrical system and will meet all laws ordinances and standards. There are no time limitations on a CEC license issued under the 6-month permit program, which sunsets January 1, 2004.

The filing requirements and procedural reviews under the 6-month process are the same as those of the 12-month process, though the Commission's targeted deadlines for completing nearly all stages of the review are compressed. For example:

- The time for all public staff workshops and staff initial review is reduced to 75 days (down from 150 days) after the date the filing is accepted.
- All local, regional, and state agencies must provide final recommendations within 100 days of when the application is deemed complete.
- Staff must complete all analysis within 120 days.

As can be seen in Figure 4, a total of 10 plants (representing 3,726 MW) have been filed under the 6-month process since March 2001, and there is a total of 7 plants (representing 2,810 MW) under review, as of this writing.

Comments on Expedited Processes

California's expedited siting process was an extraordinary response to an extraordinary crisis. At various times during 2000 and early 2001, California experienced reliability-driven rolling blackouts and wholesale electricity generation prices well over $200/MWh. These conditions were sustained over a long period, driving investor-owned utility companies into bankruptcy or severe financial distress, causing the State of California to carry out the power procurement functions for these utilities, drastically increasing the cost of power for the state's residents, and helping to stall California's economy. Under these conditions, California did not have the luxury of engaging in a comprehensive and thoughtful overhaul of state, regional and local siting and permitting procedures as the means to move generating capacity through the permitting process and into construction and operation as soon as possible. Whether there were fundamental flaws in the state's siting process was virtually irrelevant to the decision that additional generation capacity was needed, and needed fast.

As the crisis unfolded, California responded by temporarily adding the emergency 21-day, 4-month, and 6-month siting processes to the existing authorities of the CEC and to the permitting options available to power plant developers. Clearly, these emergency actions have accomplished their objective: thousands of MW of new generation capacity filed and approved under the emergency procedures are being added to the grid over the next couple years, substantially mitigating the likelihood of additional blackouts and sustained price spikes.

By nearly all accounts, however, these procedures – or at least the 21-day and 4-month processes – put an unsustainable strain on the public and on agencies alike, inevitably stretching the capacities of those staff assigned to such cases and drawing resources away from other agency program areas and responsibilities. The clear policy mandate and executive directive to add generation to the state's electrical system as soon as

possible inevitably curtailed the ability of staff and commissioners of the state and district offices to conduct thorough evaluations or fully investigate sometimes questionable siting characteristics in a 21-day or even 4-month period of time. While the 21-day process was supposed to be for projects with minimum environmental impacts, the agencies sometimes had to reach that conclusion without the time to evaluate those facts or get the benefit of the public's views on these issues.

In fact, obtaining effective public input was explicitly curtailed in the 21-day process, and could not be done effectively in even a 4-month timeframe. Even though the 4-month process does provide an opportunity for public input, this timeframe is quite unlikely to (1) adequately equip the public with the level and quality of information needed to make well-informed comments; (2) result in useful or effective suggestions of ways to improve the project from the standpoint of local interests; or (3) leave local interests with a feeling that their issues have been adequately considered and addressed. All of these factors are important to legitimize the energy facility siting process and to meet the state's commitment to obtain and reap the benefits of full public input. Although in some parts of the state there will already exist a well-informed and organized community presence that can activate and respond quickly to siting proposals, this is not usually the case, and should not be assumed. It often takes several weeks if not many months for affected residents and businesses to hear about and educate themselves on project details and likely impacts, organize themselves, understand what the opportunities are to provide input, obtain the necessary legal and technical assistance if necessary or desired, and develop and communicate concerns and/or suggestions for appropriate mitigation mechanisms.

We are less certain that a review process less than a year (perhaps as short as 8 or 9 months) can not be made to work for facilities that clearly do not introduce obvious or significant problems associated with environmental impacts, land-use/zoning practices, water use/discharge, or other issues. Further, there may be valid reasons why California (or other states) may wish to consider developing siting review procedures that can work in a shorter but still reasonable time frame. Such considerations might include the evolution of the industry to a competitive market structure, or the avoidance of another scenario where emergency siting procedures (such as those in California for peaking power plants) are required to restore balance to the system. Below, we review a number of siting procedures of other states, and explicitly identify some important features that we believe would be needed to conduct a siting process in less than a year that is unlikely to jeopardize democratic or environmental principles.

Background: The Context for Siting Reforms

California is not the only state that has experienced the friction between an expanding competitive wholesale electricity market and traditional siting and permitting procedures for power plants. Many states have implemented changes to siting procedures to address this friction, or to otherwise improve and generally speed up the siting process. Some states have changed their siting statutes as part of electric industry restructuring legislation, and others have introduced reforms through governors' executive orders or agency-initiated proceedings.

Part of the tension now felt today in siting proceedings springs from the essential foundations of siting policies, which arose during the days when the standard utility company was vertically integrated and had long-term obligations to provide the power needs of retail consumers. In the traditional industry structure model, utilities planned capacity expansions in order to assure adequate supplies of power to meet forecasted customer need. Most although not all power plant additions were proposed in-state. And during the 1970s, many states (including California, Massachusetts, Connecticut, Ohio, Florida) began to be concerned about whether specific proposals for large power plants were in the public interest. States introduced siting reviews to ensure not only that the proposed facility was needed but that it would be constructed at a suitable site from environmental and other points of view. States' formal requirements that power plant applicants obtain a "siting approval" were part of a utility planning model, in which state siting regulators reviewed ahead of time whether the state needed new plant capacity; state siting and environmental regulators reviewed whether the environmental impacts of the plant were acceptable; and state rate regulators determined after the fact whether the investment in the plant was prudent, used and useful and therefore recoverable from ratepayers.

In the past decade, the foundations of this utility planning model have changed. Virtually every region of the country has moved to introduce competition into wholesale power markets, with a substantial and growing fraction of generation capacity/energy now provided by non-utility generators. These generators effectively must sell their power into competitive markets. While there are still many vertically integrated utilities in parts of the country, increasingly most new power plant additions are being proposed by merchant generators (some of which are affiliated with regulated utilities, others of which are stand-alone generating companies) whose development plans are driven more by forward prices and other conditions in regional wholesale markets than by utilities' own long-term plans to invest in capacity to meet their retail customers' forecasted needs.

Merchant power plant investment is "at risk," in the sense that this type of investment does not enter a utility rate base with traditional or even performance-based ratemaking. These merchant power plant investments may earn a return only when they get to market quickly, produce power, and receive revenues through power sales contracts and/or participation in spot markets. Such power plant investors will introduce new plant proposals into a market only when they think that market conditions will make the investment worthwhile, and once they make a decision to proceed with a new project, they typically want to get it approved and constructed as soon as possible. In short, developers now respond to market indicators of need, rather than a transparent long-term administrative/regulatory process for planning capacity requirements. This means that sometimes power prices have to rise (indicating an impending shortage of supply or an opportunity for more efficient

production) before investors come forward with "needed" power plant proposals.

Under these conditions, developers will push aggressively to obtain the necessary approvals and financing and get facilities into the market as soon as possible. In the rush to market, there will typically be more capacity additions proposed than the market will support in terms of financeable projects, and the development process can be seen as a race to get regulatory approvals and complete other necessary project elements ahead of other competitors, so that power plant investors can begin earning a return on investment at the earliest practicable date, before the entry of other efficient generators saturates the market and drives down wholesale electricity prices. In this context, there is almost certainly more pressure to compress permitting, development and construction times than in the past. This overall development pattern is inherently in tension with traditional siting procedures designed for an era of utility long-term planning processes.

While these changes have been transforming the power market and generation infrastructure development process, other factors have not changed. These are the public's expectations to be able to have a voice in and play a meaningful role in the siting process, and neighbors' and environmental activists' expectations about necessary environmental protections for large-scale power plants. Local groups in California and in other parts of the country have become fairly adept at organizing to participate in siting reviews, and given the relative magnitude of impacts from large stationary sources of pollution, environmental law and advocacy groups typically view new plant development projects as important targets for their attention. These players see new plant developments as introducing a very long-lasting change to the physical landscape of their communities and they want to make sure that no plant is allowed to be built that is not needed, well-designed or as clean or as unobtrusive as it can possibly be. These facts heighten the tension between market-driven siting requirements of developers, on the one hand, and the due process requirements embedded in traditional siting processes practiced by states, and traditional democratic norms of public participation, on the other.[30]

States are looking to reform siting processes in the context of these somewhat countervailing conditions in the electric industry. The changing nature of the industry has brought to the forefront several fundamental considerations that have always been important in state regulation of power plant siting but are more in tension than ever before. Many states recognize that with wholesale generation competition, siting requirements and procedures themselves can play an undesirable and even adverse role in barring entry to markets - something that undermines competition. At the same time, states recognize that for their siting processes to be credible and ultimately worthwhile in terms of the public interest goals of siting statutes, siting processes must allow for robust public participation and review prior to construction even in the face of growing pressure from developers. In California, of course, this tension hit the breaking point politically, in light of the 2000-2001 electricity price and reliability crisis, and the emergency prompted the State to tip the balance towards getting plants permitted and built as quickly as possible. Other states have implemented siting process changes under similarly difficult conditions – for example, in the context of comprehensive restructuring efforts that required the full attention of all involved not just to siting, but to issues of market structure, stranded costs, public benefits, and industry realignment as part of an entire package.

To explore the "best practices" of states in reforming their siting processes to strike a proper balance between the requirements of competitive markets and those of democratic and environmental protection norms, we looked at how various states have crafted their procedures and policies. We reviewed these energy facility siting procedures by examining three basic attributes of siting policies: administrative procedures and requirements; standards of review; and public participation. Our focus has been to identify approaches to facility siting and permitting procedures that can achieve the appropriate balance of the market's efficiency requirements, the public's requirements for fairness and access to the process, and the public's interest in environmental protection.

We developed our discussion of effective siting approaches through a review of the siting procedures used in other states, with a focus on those states that (1) have recently undergone changes in siting procedures; (2) have recently restructured the industry; or (3) otherwise apply comprehensive, interesting, or unique approaches to facility siting and environmental permitting. Throughout, we present specific examples from state practices to illustrate options for achieving the desired outcomes. Attachment 3 contains a table of summary information on the siting procedures in several states we reviewed.

Best Practices: Process Administration

Clearly, a state's procedures and processes for reviewing and deciding upon proposals to build and operate large new energy facilities can have a significant impact on the cost, timeliness and overall efficiency of project development and operation. Key factors in siting process administration include the existence of – and moreover adherence to – agency deadlines for reviewing and deciding upon an application; the degree of coordination among various state and local agencies with jurisdiction over facility siting, construction or operation; and the importance of the substantive content and the consistent application of state laws and agency regulations and precedent related to review of new power plant proposals.

Deadlines

Most states establish statutory or regulatory deadlines on both the developer and the lead siting authority. A typical deadline is for the agency to have one year to review a complete application.[31] However, most states impose no penalty upon an agency for its failure to meet a deadline, and there are many instances where states have taken much more than the allowed time to review an application - with no consequence to agency. In some cases, a state siting process will impose deadlines on applicants and intervenors, with an eye towards preserving the agency's and others' scarce resources on projects that are not moving along in a reasonable fashion, and to provide all parties with a more predictable schedule. Reasonable deadlines and adherence to them are important for the overall efficiency of the review process.

There are a number of associated policies and procedures that may support the existence and successful implementation of siting process deadlines. The following are examples of such policies and procedures.

- First and foremost, to meet deadlines there must be clearly articulated and transparent information, data and procedural requirements. For example, New York has an aggressive pre-filing approach to ensure complete applications, initiate developer communications with relevant parties (particularly at the local level), and identify the information that

must be included in the application (i.e., project "stipulations"). Applications can be required to include permit/license applications for other agencies (see "one-stop shopping," below), whether or not such procedures are fully integrated in the primary siting procedure.

• Because it is difficult to use penalties against agencies that miss their deadlines, many states put in place "incentives" to encourage the agency to act in a timely fashion. A relatively weak incentive is a requirement that the agency obtain the written concurrence of the applicant if the agency wants to take more time (this mechanism is applied, e.g., in California, Connecticut, and New York). In practice, this requirement is inherently ineffectual as a way to force the agency to meet deadlines, since the applicant's choice at that point in time is to face a rejection of the application or agree to more time. By contrast, Wisconsin's policy is to require the agency to appeal to a state court of competent jurisdiction if the agency wants an extension; this has the motivating effect of requiring the agency to publicly make its case for more time - and to only request it in exigent circumstances since it is embarrassing for the agency to have to ask repeatedly for court permission to take more time, and since without the court's permission, the power plant application is approved as proposed.

• One of the most effective means to make agencies adhere to deadlines is to have a central political office paying attention to the agencies' schedules for completing its reviews of applications. Perhaps the most dramatic examples of this recently took place in California, where regulators had a formal mechanism (the Governor's "Generation Team") to coordinate the schedules and work flows of all agencies involved.[32] Other states have also used a lower-key version of this process to useful effect during periods when they have faced a flood of power plant applications to review.

• Strict agency statutory or regulatory deadlines must be accompanied by adequate staffing and resources to handle potential "peak load" of siting cases. If the pattern of submissions fluctuates substantially, then the agency might consider contracting out some of the tasks in order to meet appropriate review time deadlines.

"One-Stop Shopping" / Interagency Coordination

Some states effectively coordinate reviews by different state (and sometimes even local) agencies, with benefits to both the developer and other parties. Examples are New Hampshire, New York, and California. The developer benefits by having all of the agencies' reviews carried out in a more coordinated process (at least in terms of timing, and sometimes even in terms of substantive consistency), and it cuts down on the number of places where opponents can go to oppose their project (and risk a "veto" in any place). Parties with limited resources benefit by having to make their case once rather than in several different proceedings.

California's approach to coordinating review processes is as effective as any other we reviewed, while other states have similarly effective variants (for example, New York holds joint hearings between the state's environmental department and its siting regulators, who jointly issue procedural rulings and decisions). In order for agency coordination mechanisms to be effective, all state licenses and permits must be obtained within the siting timeframe – ideally according to statute or regulation, but otherwise through formal agency coordination/review procedures. In addition, where federal or separate local approvals are necessary, these can be effectively accommodated within the siting timeframe through

filing or procedural requirements on the developer, through established coordination mechanisms, or through appropriate and consistently-applied practices of the lead siting agency. Operating permits, where different from permits/licenses needed to begin construction, must also be coordinated in the sense that they will be issued well before construction is completed in order to ensure that there are no major issues likely to delay operation upon completing construction (and to reduce the pressure on agency to issue an inappropriate or untimely approval of operating permits in light of the large developer investments that have been made up to the point of permit review/approval).

Substantive Content and Consistency of Reviews

The administration of power plant siting approvals is conducted with greatest efficiency in states or instances where there is a high degree of predictability and consistency from one review to the next. Some important features of achieving this consistency are summarized below.

- Agency decisions should be predictable where issues of substance have previous case histories or precedent. The agency should make precedent clear to potential developers in a formal pre-filing phase - including through publication of a booklet or process guide (such as in New York, California, and Connecticut). Pre-filing efforts by agencies and applicants should also attempt to identify features of proposals that run counter to past decisions, or where agency/judicial precedent is either ambiguous, under review, or obviously changing (e.g., BACT evolution, need evaluations).

- Stipulations of issues, data and methods - New York has a formal process by which parties (including agency staff and local interest groups) sit down with applicants ahead of a filing and agree to the technical issues that need to be specifically addressed in the filing. These stipulations then guide the applicant's preparation of its filing, as well as the agencies' determination as to appropriate scope of inquiry by its own staff and intervenors.

- The focus of agency and intervenor efforts need to be targeted to issues of merit. This is the "materiality" goal: agencies should spend most of their time on material issues. (New York does this through various means, including strict legal reviews of whether adjudication of a particular issue is likely to be material to the agency's decision, with parties having to explain ahead of time why they think an issue is material. The aim of this approach is to address concerns that agencies are often forced to spend a high percentage of their time dealing with issues that are immaterial in the context of the agency's jurisdiction and responsibilities.) Consequently, mandatory pre-filing efforts to identify issues of importance to the developer, agencies, and the community are effective mechanisms to enhance the efficiency of the siting process.

- Another highly effective tool in focussing facility siting reviews is to conduct and encourage participation in technical conferences at early and later stages of the process, in order to educate staff and the public about the issues prior to the deadline for petitions to intervene, hiring of expert advisers, consideration of the evidence, and the conducting of hearings on the record. There are many states that include some form of this within their siting procedures, or that encourage applicants to conduct technical conferences prior to filing. Any abbreviated siting process should include a formal requirement for the pre-filing education of local officials and interests through technical conferences.

Best Practices: Standards of Review

Power plants provide society with the many necessities and conveniences powered by electricity. But there are several reasons why a high degree of effort goes into reviewing facility siting applications: (1) large power plant construction permanently changes the look, sound and feel of the local environment and community, and creates an active local nuisance during plant construction; (2) the sale of power from the plant power plant operation impacts the electricity price[33] paid by residential and business consumers; and (3) power plant operations have a major impact on local, regional, and global ecosystems, and ambient air quality for decades to come.

Consequently, most state reviews of power plant siting applications have historically attempted to tackle a wide array of these concerns, with an eye to determining whether there are public benefits that exceed the adverse impacts, and historically to ensure that the proposed facility at the proposed site is superior to available alternative sites and/or generation or conservation technologies. Below we discuss several of the more important standards that are common across many states, and that play a significant role (or one that is increasing in importance) in current siting cases.

Need/Public Convenience

Traditionally, siting reviews of power plant proposals have involved administrative determinations that the facility was needed to meet growing electricity demands in the state or the host utility's service territory. In the context of vertically integrated electric companies, this determination has been an important factor in authorizing construction of the plant as needed and, therefore, that its costs should be recoverable through regulated rates. The evolution of the electric industry to a competitive wholesale (and in many states competitive retail) market structure has a fundamental impact on the importance and role of the need determination in facility siting reviews.

Where there is an active wholesale market for electricity, adequate transmission capacity, and the ability of electric companies to meet service territory load growth and customers' energy requirements through contracts with third parties, it is generally viewed as less important that the developer demonstrate that the proposed facility is necessary to meet electrical load requirements on a local, state, or regional basis. This is particularly true in the case of independent power developers, whose recovery of investment is "at risk," and based entirely on transactions in the wholesale market. As many of the developers have argued to legislatures in states that were considering reforms of their siting processes, it is market forces that define "need" for power plants in competitive power markets, and the siting agencies should not also impose their judgments on this question through administrative determinations of "need." According to this argument, siting agencies should focus their reviews on whether a proposed project's environmental impacts are acceptable. Given the evolution of wholesale competition, there may be few states in the country where a need demonstration for generation additions continues to serve an important function, or places a constraint on the addition of electrical capacity that is not already imposed through the workings of financial markets. Many states – particularly those undergoing a restructuring of the industry, such as California, New York and Massachusetts[34]– are eliminating such need determinations.

State versus Regional versus Local Interests

There are subtle variations of the need determination issue that relate to the distribution of the benefits of new facility construction and operation across a state or region, and that can be reflected in specific state siting review policies. Two of these – state overrides of local decisions, and the role of regional needs in a single state's review process – are discussed below.

- Override issue - A few states (Massachusetts, Connecticut, California) allow an applicant to obtain a state "override" of local permit/approvals /requirements as a way to enable facilities that have been found to be in the state's interests to move forward even if they are inconsistent with a local ordinance or policy (e.g., zoning). The state siting agency may decide whether it is in the state's interests to issue such an override, which is often required to be made on "need" grounds. Typically, it will be used by developers if they have previously obtained a state siting approval and then bump into a local zoning problem; at that point, there is in effect a shifting of the balance of power between the locality and the applicant, because the state has already said the project is approvable, and the applicant is then going back to the state to enforce that decision over the land-use or other regulatory decisions of the locality.

- Regional benefits/impacts issue - State siting statutes typically do not allow a state to approve a facility proposal based on a regional need/benefit, unless there's a clear showing that the facility has benefits to the host state. This situation could become increasingly problematic where merchant plants are proposed to serve regional power markets - and are being encouraged to do so by federal policy that is attempting to minimize the seams between states and utility-service-territory boundaries and increase the size of economically efficient regional power markets. The benefits of plants may be regional but the construction and/or operating impacts of a plant will still be largely localized, although this effect may be mitigated where location-based pricing gives incentives for siting generation close to load. We are aware of no state that requires a power plant developer to demonstrate a need or public benefit and that does not also require that there be positive benefits to the host state. Massachusetts and California are, however, examples of states that no longer require a need demonstration at all.

State and Federal Air, Water, and Solid Waste Impacts

As noted above, most large electric generating facilities can continuously impose permanent impacts on the surrounding environment for several decades or more. State and federal laws generally require the developers of such facilities to obtain initial licensing and ongoing operational permits to demonstrate compliance with state and federal emission/water discharge/solid waste control requirements. Once there is some experience with siting specific generation fuels and technologies, and consequently in figuring out what mitigation is needed to comply with state and federal standards, there is little ambiguity in what a developer must include in a siting application to meet these mandates.

However, as noted earlier, adequate state review of siting applications quickly grows in complexity (and usually time) when the environmental impacts or compliance mechanisms depart from standard practices, whether as a result of changes in requirements, or an attempt to site facilities in particularly sensitive locations, or a proposed use of new or controversial emission control requirements or offset packages or power generation technologies. A clear and current understanding of what is required for

emission (or impact) mitigation – both in terms of data and measurements necessary for state review, and technologies generally accepted in prior cases – are prerequisites to minimizing the time for site environmental analysis.

Often, states will require an Environmental Impact Review ("EIR") prior to or separate from the normal siting process for large facilities. Delays in site development may be introduced where EIRs are duplicative with, or carried out outside the siting process. Mechanisms introduced to reduce unnecessary delays include the incorporation of EIR requirements in normal siting reviews (as in California); or the elimination of the requirement to compare the proposed plant's emissions to those of alternative technologies where the proposed project's emission impacts meet or exceed prescribed, "state of the art" standards (as in Massachusetts).[35]

Finally, in many states there is, or has been, an obvious "clustering" of power plant development in small geographic areas. Often, these areas are also populated with other (non-power plant) large point sources of air and water pollution. In some cases, there are physical reasons for such collocation – including the configuration of high voltage transmission lines, and the proximity to natural gas pipelines. In others, the reasons for multiple projects in a given area may have less to do with physical characteristics than economic, social, and political factors. In practice, such clusters of infrastructure projects and stationary sources of emissions are most often in or near low-income communities, raising concerns over the disproportionate and cumulative impact on these communities of power plant siting decisions.[36]

Several states have begun to include or require evaluations of the cumulative environmental impacts from groups of power generating facilities and other large point sources located within a relatively small geographic area. Some states have gone as far as proposing rules and/or delaying the filing of merchant plant applications in light of potential cumulative impacts. For example, in December 2001, the Virginia State Corporation Commission (Virginia SCC) proposed a new rule to require a cumulative impact analysis to be filed with each power plant proposed to be built in the state. The rulemaking has not been completed. In the meantime, and saying that it could no longer "ignore these proposed facilities" and "the cumulative effects of numerous plants, each of which, when reviewed individually, was deemed insignificant," the Virginia SCC recently remanded a hearing examiner's proposed merchant plant siting approval for further review of the environmental and other impacts of the proposed plant in light of the likely impacts of the large number of other pending siting applications.[37] Kentucky and Tennessee have also recently suspended the filing of merchant plant siting applications until comprehensive consideration of their impacts can be completed.

While these are examples of how cumulative impacts are beginning to affect siting considerations, currently few or no agencies have successfully established a formal mechanism for how such evaluations should be considered in the site evaluation or emission permitting/licensing process, or how cumulative impact considerations should be mitigated by individual project proponents or taken into account by permitting agencies. State efforts to introduce cumulative impact or disproportionate impact considerations in the context of state siting procedures are complicated by the complexity of assigning responsibility for impacts across existing and proposed sources. The very real concerns of a local community related to a grouping of large point sources is not easily accommodated in state procedures designed – as a matter of law and from a procedural point of view – to

evaluate the impacts of a single source. Moreover, since most power generation projects are proposed by single business entities that do not and indeed in some instances may not jointly plan their projects together, there is an inherent tension between the private market model on which we rely for bringing about generation infrastructure, and the public's desires for a comprehensive approach to analyzing the impacts of such multiple projects. We are aware of no state that has successfully addressed this issue in a way that appropriately recognizes the timing and business requirements of applicants, while adequately addressing the concerns of local groups to understand and take into consideration the cumulative effects of multiple projects proposed in close proximity to one another.

Best Practices: Public Participation

As noted above, while the changes in wholesale and retail market and regulatory structures over the last decade have transformed the generation infrastructure development process, the public's interest in and right to review and provide their input on power plant development proposals has not changed. However, the recent experience in California demonstrates just how quickly traditional state procedures to encourage and respond to public input may be sacrificed in the face of dwindling reserve margins, threats and actual incidences of involuntary load curtailments, and/or skyrocketing power prices. Moreover, it may be unwise to assume that the recent California facility siting experience will in the end be unique, since much of the country has also taken steps to deregulate the generation sector of the industry, and leave capacity development decisions to the response to energy market signals.

The public's reactions to a diminishment of its role in reviewing major new energy facilities has been quite negative in certain locations. Recent proposals to further streamline the siting review process in California have met with stiff resistance from local citizens groups and environmental organizations.[38] Other states have also witnessed a public backlash against recent surges in merchant plant development in the context of a deregulated wholesale market.[39] In California, "public acceptance of the legitimacy of the emergency process appeared to be closely tied to public perception of the existence of an emergency to be addressed … [and] that valid projects are being proposed and permitted."[40] As the process of restructuring the electric industry continues, states will need to find a new equilibrium in siting procedures that can maintain public interest protections while adapting to the financial realities of the new market structure. This is important because avoiding the full and informed participation of local and regional public and environmental interests more often than not will increase the controversy, difficulty of and time needed for siting individual plants – and more generally managing state siting procedures – by creating a climate of mistrust and antagonism.

Finding the new balance will not be easy. Based on our review of state procedures for public input and comment, and our understanding of the technical and legal complexity of state and federal siting and environmental permitting procedures for major power plant proposals, we can not conclude that the standard (i.e., non-expedited) processes in California (and most other states) are inappropriate, introduce unwarranted delays in facility siting reviews, or significantly impact economic development or the provision of reliable electricity service. Nor can we conclude that significantly shorter siting timelines can easily maintain the necessary level of public and environmental review.

Most standard facility siting processes provide the agency with roughly a year from the date of notice to conclude a siting proceeding. This means that the public has a much shorter time frame to prepare for and contribute to siting reviews. While this may seem like sufficient time for developers, well-organized and financed intervenors, and others intimately familiar with the process, it can be a daunting and demanding task for the very individuals and groups that are typically most interested in the review of plant proposals: abutting and local members of the public; town and regional officials; and small local environmental organizations. While some statewide organizations may have developed a degree of expertise of the impacts of power plant proposals, this is certainly not always the case, and rarely is it true for local interested parties (most of whom have full-time employment unrelated to the energy industry and have their own job and family responsibilities, meaning that participation in power plant siting reviews has to be squeezed in among other time commitments). This problem can be further exacerbated by the fact that facilities may be disproportionately proposed for locations that have a higher percentage of minorities than the general population. For example, where facilities are proposed in communities with a high percentage of residents for whom English is not the primary language, the difficulties of adequate review and participation can be greatly amplified.

The difficulty inherent in the public's participation in the review of major development proposals stems from technical complexity, the existence of multi-jurisdictional authorities with different process traditions and requirements, and the difficulty in obtaining needed information in understandable form. Within deadlines and through formal processes that are generally familiar to applicants and frequent intervenors, but not to smaller organizations or the general public, interested parties must:

- develop a general understanding of an applicant's proposal and how it might affect them;
- participate in local meetings with the applicant to discuss the project, its impacts and local concerns;
- learn the basic opportunities and legal/regulatory requirements for data gathering and formal input;
- familiarize themselves with the technical details of the proposal, as well as the statutory requirements judicial history, and agencies' precedents governing local, state, and federal reviews;
- organize and obtain or solicit the necessary professional, financial and other resources to participate effectively;
- find and contract with legal or technical experts if resources permit;
- obtain and review data and information absent in initial filings from the project developer, and in some cases prepare for and cross-examine developer and intervenor witnesses;
- develop and present/submit comments, evidence, and/or briefs, and respond to data and information requests from the developer, state, and other intervenors; and
- take on all of these activities on a volunteer basis (unlike the applicant and the agencies, whose staff are performing their functions as part of their jobs).

Of course, no members of the public are required to participate at this full level of involvement. But such a level is required in many states in order for the public to participate meaningfully in the formal siting process. In practice, public and local participation

rarely rises to this level of involvement and review given the obvious hurdles imposed by time, financial, and other resource constraints. But often the greater the level of knowledge and participation by members of the public, the more likely that siting procedures will result in meaningful improvements to project proposals, and not get bogged down by local reactions and judicial appeals that may be driven in part by public mistrust and misunderstanding.

Many steps may be taken to encourage and obtain effective public input in facility siting reviews. Incorporation of as many of these steps as possible will be important as states revise siting procedures to better fit an electric generation industry comprised of competing firms responding to rapidly-changing market signals. The 12-month siting review process in California includes many features to encourage active public participation and generating meaningful public comment, but other states have gone even further.

Below, we summarize effective mechanisms used in California and elsewhere to support the administration of a public process within the one-year siting review timeframe. Given the complexity and resource issues summarized above, we believe that inclusion of most of these elements – as formal, enforceable mechanisms – can facilitate the orderly administration of siting reviews, and become increasingly important to maintain the fairness and integrity of any siting process for major facilities that is streamlined or expedited, reducing the review timeframe to less than a year.

Assistance and Funding Mechanisms

There are at least three ways to facilitate the informed participation of the public in siting reviews – effective online information, active state public assistance programs, and funding assistance for local intervention.

Most state siting and environmental permitting authorities have websites that provide at least a cursory description of state siting procedures, and links to related state and federal agencies. In many cases, these websites also provide a listing of currently-active energy facility siting cases. However, several states – California and New York are the best examples – provide a wealth of information to the public on the siting process, development proposals, and the status of ongoing siting reviews. Given limited time frames for the collection of pertinent information on state procedures and specific siting proposals, internet access to such information can provide critical support for local individuals and organizations affected by, or considering participation in the review of, new development proposals. The following represents a list of specific information that should be included on state websites related to the siting process:

- A Siting Process Roadmap, including a basic description of the facility siting approval process, with organizational/flow diagrams where appropriate; a summary of, and website links to, the laws, regulations and agency and judicial precedent governing state review of siting proposals; typical timelines detailing the content and duration of major steps in the process; a description of the roles played by all local, state, and federal agencies that must review or issue approvals and/or permits before a facility may begin construction or commercial operation; and a listing of agency contacts.

- Siting Status Summaries, including tables, maps, and brief characterizations of all facility siting proposals currently active or otherwise filed over at least the last several years. Summary information should provide relevant milestone dates and current project status, as well as links to more detailed information on the agency and/or developer websites.

- Specific Website Pages for each siting case, with information on the case status, schedules and process deadlines; detailed descriptions of the proposed facility; files or links to files with access to documents submitted by proponents in support of their proposals, as well as any other documentation relevant to the case; official agency decisions related to the case; and contact information specific to the case for both the agency and developer.

- Other Relevant Links to local, state and federal agencies; developers and intervenors; and information resources.

It is very important in this context to actively maintain such websites, to ensure that the information is as up-to-date as possible. In addition to providing this necessary information, some states have used email and internet sites for automatic notification of key dates or events for parties to specific cases, and generally for members of the public that can add their names to active listserves. While there are typically legal issues associated with only using such activities for formal notifications, automatic notices can at least provide an instant (if duplicative) notification of events relating to siting proceedings. Where facilities are proposed in communities where many residents are not fluent in English, it is particularly important that public outreach efforts include active presentation through local media and frequent public meetings.

In addition to ensuring comprehensive information is available online, states may dedicate specific resources to assisting the public in siting cases. For example, California encourages and supports active and constructive public participation through the office of the California Public Advisor. The Office of the Public Advisor was established by the Warren Alquist Act, and is available to help the public identify ways of participating in siting proposal reviews and to obtain necessary information and documentation. Among other things, the Public Advisor ensures adequate notification to potentially interested parties of applications filed with the Commission; helps members of the public understand the siting process; responds to all public inquiries related to the siting process or individual applications; ensures an adequate opportunity for public input in Commission workshops and hearings; and advises the Commission on measures necessary to ensure full participation of the public in CEC proceedings. The Public Advisor has also prepared a comprehensive guide detailing how to participate and intervene in the California siting process.[41]

Other states (for example, New Hampshire and Washington) specifically appoint state counsel in each siting case to represent interests of the public or the environment. This representation may be focussed on identifying environmental, nuisance, or local interest issues that arise in connection with siting proposals, and generally have the authority and/or funding to conduct studies to assess or develop remedies to address these issues.

Finally, as noted above, local public and environmental interests that are affected by siting proposals do not usually have sufficient time or resources to become fully informed in the course of a siting review, or to participate in the siting process in a productive or effective manner. In general, the time and resources of local intervenors are simply dwarfed by the resources of developers and other intervenors in a case. Several states provide mechanisms to provide "intervenor funding" or other analytical support (paid for by the applicants) to address these deficiencies. In addition to the appointment of state counsel to represent public or environmental interests (mentioned above), states may provide specific targeted financial support for local intervention. In Rhode Island, the host community may

request funding for studies of environmental impact. In New York, development filing fees include a charge of $1/kW, up to $300,000 to go into an intervenor fund, to help defray the expenses of municipal and other local parties associated with developing and presenting expert testimony in siting proceedings.

Pre-Filing Requirements and Procedures

Most states now encourage voluntary efforts by developers prior to the filing of an application to at least identify local boards and councils in cities and towns at and surrounding the proposed siting location. Some states also encourage developers to reach out to community and environmental groups as well. It is generally expected that such outreach activities will continue throughout any initial agency reviews of data adequacy following the filing, and beyond. The benefits of this outreach are to identify any fatal flaws or, if none, identify (and ideally resolve) substantive issues so that they may be addressed in the filing with the agency. Pre-filing contact may also reduce the amount of time spent during the formal filing period in educating groups and individuals about the proposal.

In addition to voluntary encouragement for such activities, however, some states add teeth to their prefiling outreach provisions. For example, in New York applicants are required to demonstrate that they carried out a meaningful public involvement program and actively solicited public input prior to the filing including, for example, the establishment of a community presence, toll-free number, and website; holding meetings; and offering presentations to outline their plans. The New York Department of Public Service has established detailed guidance on developer activities that are required to make this demonstration. Further, New York State requires the applicant to demonstrate in a formal filing the active solicitation of public input prior to filing, and requires the negotiation of stipulations that shape the nature of the information that will be provided by the applicant as part of the review process.[42]

It can also be very helpful for the state to provide early guidance to interested individuals and groups on siting standards, precedent, and procedures. Perhaps the most important part of this is a well-constructed and up-to-date website, but it is also effective to arrange an early visit to the community to make a presentation on the state's siting and permitting procedures, and to outline the opportunities for public involvement.

Formal Procedures

Once the filing is made, opportunities to provide input nearly always include public hearings (where anyone can present their comments on the proposal), and usually also involve an adjudicatory or contested-case proceeding. Depending on the state and the type, size, and location of the proposed facility, the lead siting agency may also hold informational workshops or technical sessions to discuss issues before moving to the contested-case phase of the proceeding. For example, on each application, the staff of the CEC often holds at least several workshops with developers and interested parties. While these issue workshops help the staff develop their own comments on the proposal, they also can serve as a forum for resolving issues before getting to the formal decision-making phase of the proceeding.

Conclusions and Recommendations

During the past year, California's power plant siting process has been often blamed for contributing substantially to the tight power supply situation that accompanied the state's recent electricity crisis. The State responded to capacity shortages by introducing siting "reforms" and expedited procedures to review power plants that could be permitted and constructed and go into operation in record times.

With hindsight and data as a guide, it turns out that California's siting process cannot reasonably be viewed as a major or even minor cause of capacity shortages in the states. California's supply problems were tied to power market fundamentals, unfortunate weather and changing economic conditions, and regulatory policy trends and uncertainties - especially an extraordinary level of uncertainty regarding how utility and non-utility power plant investors would recoup any new investments in generating capacity.

While California's traditional siting process hasn't been perfect and delays in siting reviews have occurred, all in all, California's traditional process now appears to have most of the desired/effective elements of any state siting process whose goal is assuring adequate supplies of environmentally acceptable generating capacity through a process informed by interested members of the public. In particular, California's long-standing process is a "one-stop" regulatory model, focused on important environmental and siting criteria, with transparent information sources, relatively effective deadlines, active public participation and relatively well-coordinated reviews by other public agencies. For the most part, its time frames are appropriate to the magnitude of the development impacts, its focus is on important environmental issues, it relies on market forces to determine need, and it actively solicits and incorporates public participation to properly inform public decision makers. The California Auditor's Report concludes that the CEC has administered the siting process in a reasonably efficient manner; we conclude that it has done so while still committing an appropriate level of attention to environmental and public interest goals – goals that will not recede in the future.

The siting reforms that have been recently introduced to review power plant applications on an expedited basis during California's electricity crisis have been "successful," in terms of their goal of moving a substantial amount of proposed generating capacity through the permitting cycle in record time. But in terms of the other features of a "successful" siting process, the outcomes are much more mixed. The 21-day, 4-month and 6-month time frames for reviewing different types of power projects are so short that they are not sustainable.[43]

The compressed time frames and procedures that various parties (such as agency staff, members of the public) may be willing to tolerate during a short-lived crisis, are being viewed as inappropriate and unacceptable for a longer-term siting process. Most notable among stated concerns about these expedited processes are the obvious concern over limiting the ability of the public to review and comment on staff analysis and so inform decision makers; clear difficulty in squeezing complex air and water quality reviews into compressed timeframes (especially as the "easy" sites are used up), when new control technologies require extra review times and when the interactive effects of so many simultaneous power plant projects loom large in the public's concerns. The 21-day review process is simply inadequate for any legitimate public process, and depends almost entirely on the good judgment of the state agency staff (with whatever political pressure may be imposed on them in particular cases), clear information in advance about what sites are suitable for development, and a drastic change in the extent, cost and use of agencies

resources. The 4-month and 6-month processes, which are designed for bigger-impact projects, are also testing the public's confidence, in light of the difficulties that members of the public as well as agency staff have in credibly reviewing the impacts of projects proposed that will affect a particular site and its environs for decades to come.

We agree with California's decisions to date to allow its expedited 21-day and 4-month procedures to sunset at the end of 2001. We also recommend that California consider the benefits of adopting a process that compresses the 12-month process into a somewhat shorter time frame - perhaps eight or nine months. In doing so, California should keep many features of its traditional process, some of which have been enhanced over the past year and a half, and then look to other states for their "best practices" to further improve the state's siting process.

In many ways, California's siting process before the electricity crisis hit was more effective than many other states' processes, mainly due to the fact that California has a "one-stop," coordinated permitting process. This is something that most other states lack. If further improvements are sought, California could review innovative procedures in other states, like New York, that have put together an even more tightly wrapped siting/environmental permitting process facilitated by an aggressive, up-front solicitation of public involvement.

One of the most important features of any siting process will continue to be the role of the public. The technical reviews of power plants are simplified on the one hand because, at the moment at least, most project proposals today have similar technologies (mainly gas-fired combustion turbines and combined cycle power plants). These facilities are fairly standardized in terms of their overall environmental footprint. However, the real issues focus in on certain key questions that are a function of factors beyond simply the combustion and pollution control technology: Are the plant's cooling system and water use acceptable at the proposed location? What are the lowest achievable air emissions for the proposed technology and are they acceptable in a particular air basin? Are the noise, traffic, and visual impacts of the plant compatible with local land uses? Is the plant consistent with environmental justice considerations for the neighboring community? Does the plant represent a significant contribution to cumulative environmental impacts? These issues lend themselves to important balancing considerations, and public input is an essential component of an agency review process that must issue its approvals consistent with longstanding judicial precedent and public interest standards.

California established its expedited siting processes in the face of an electrical reliability emergency that involved important public interest considerations related to human health and safety and the structure of the state's economy. If there are state siting policy lessons to learn in retrospect from the crisis – and the state's responses to it – they include the following: (1) Expediting siting procedures is very likely to compromise environmental goals and fundamental democratic principles that guarantee the public its right to provide input; and (2) California and other states – particularly those that move forward with a commitment to a restructuring of their electric industry – must find and adopt policy mechanisms, market structures, and administrative procedures that will prevent a repeat of the need to abandon standard facility siting review procedures in the first place.

Power plant siting reviews are likely to remain the domain of the state for the foreseeable future. Given this, along with the increasingly regional and competitive nature of wholesale power markets, states

would do well to review “best practices.” These best practices include: meaningful inter-agency coordination; establishment of real deadlines for reviews; clear and enforceable filing requirements and guidelines for substantive filings with complete information; consistent and clear standards of reviews from project to project; focus on environmental impacts, allowing the market to determine need to the greatest extent possible; providing a back-stop state override authority over local permitting decisions where necessary and appropriate; clear environmental data requirements, including with respect to cumulative impacts; clear expectations regarding mitigation of environmental impacts; and provision of a procedural schedule and other forms of information and funding assistance to support meaningful public participation in a manner that will allow complete review within one year. Some of these "best practices" are part of California’s siting process; others come from other states. This set of recommendations is applicable to state siting procedures in states to support reliable power supplies in competitive wholesale markets, regardless of whether a state has adopted a retail open-access regulatory structure.

ENDNOTES

[1] See, e.g., California Messes Up, Editorial, Wall Street Journal, December 28, 2000 ("…things are made so tough in California that no new substantial power generation has been added in the state in almost 15 years"); Lawrence J. Makovich and Daniel Yergin, "California in the Dark," March 19, 2001. ("The third mistake [leading to the California Energy Crisis] is the creation of monumental obstacles to siting and granting permits to new facilities.") Cambridge Energy Research Associates, http://www.cera.com/news/details/1,1345,CID1675,00.html; and Eric Hirst, The California Electricity Crisis – Lessons for Other States ("California's strict and complicated siting reviews may also have deterred investment in new generating facilities"), prepared for the Edison Electric Institute, July 2001.

[2] California State Auditor, Bureau of State Audits, California Energy Commission: Although External Factors Have Caused Delays in Its Approval of Sites, Its Application Process Is Reasonable. August 2001. (Hereafter referred to as "Audit" or "Audit Report.")

[3] The Executive Orders establishing the expedited processes lapsed as of December 31, 2001. The CEC has favored the discontinuation of the 21-day and 4-month reviews, although not the 6-month review process. CEC, Emergency Conservation and Supply Response (December 2001).

[4] The Commission certifies the siting of new power plants and related facilities, but it does not hold authority for the siting and permitting of power plants smaller than 50 MW. (In this paper, we refer to plants of over 50 MW and above as "large" or "major".) Regional air districts, zoning boards, and other local authorities are responsible for reviews and approvals in such cases. In this paper, we focus primarily upon the procedures for siting the large generating facilities that are within the purview of the CEC.

[5] Under the Act, the CEC's site certification is "…in lieu of any permit, certificate, or similar document required by any state, local or regional agency…and shall supersede any applicable statute, ordinance, or regulation of any state, local, or regional agency." California Public Resource Code, Section 25500.

[6] These include, for example, the local air pollution control district and the State Water Resources Control Board.

[7]By law the 12-month deadline may be extended through mutual agreement of the Commission and the applicant.

[8]Areas of examination by the staff include air quality, alternative sites, biological and cultural resources, electric system reliability, facility efficiency and design, geology, hazardous materials management, land use, noise and vibration, public health effects, socioeconomics, soil impacts, traffic and transportation, transmission system engineering and safety, visual impacts, waste management, water resources, and worker safety.

[9]As noted above, the siting process is coordinated to act in essence as a one-stop siting process, involving review and determinations of other state agencies (e.g., regional air districts and water boards). However, even if the substance of other agencies' reviews is basically complete within the timeframe of the CEC review, construction may not commence until the applicant has received the final permits to construct or operate from all agencies.

[10] Among other tasks, the Public Advisor ensures adequate notification of applications filed with the Commission; helps members of the public understand the siting process; responds to all public inquiries related to the siting process or individual applications; ensures an adequate opportunity for public input in Commission workshops and hearings; and advises the Commission on measures necessary to ensure full participation of the public in CEC proceedings.

[11] See, e.g., National Resources Defense Counsel, Myth and Reality in the California Energy-Crisis Debate ("Market conditions, rather than California's environmental review processes and protections, have led to business decisions not to build new plants in the State…over the last decade"). http://www.nrdc.org/air/energy/qcalen.asp. Last revision March 21, 2001. Also see Jerry Taylor and Peter VanDoren, California's Electricity Crisis, Cato Institute Policy Analysis, July 3, 2001, at 14, noting that opposition to new power plant development was not only "…a relative nonfactor in generator investment decisions in the early to mid-1990s, [it] scarcely played any role in blocking new capacity in the months leading up to the crisis."

[12] Audit at 10, 16. Comparison states were Oregon, Texas, Minnesota, Connecticut, and Florida.

[13] Audit at 1-2.

[14] The 15-month average does not include three extreme cases that required resolution of significant plant emission concerns. Including these cases, the average combined time for data adequacy and application review was 17 months.

[15] In theory, this could be difficult for a developer where filing requirements are unclear, applied inconsistently, or are constantly changing in significant ways. However, the filing requirements for the CEC siting process are very prescriptive, and are widely available (along with related forms and checklists) in the agencies' regulations, recent staff adequacy reviews, and in several publications contained on the agency's website.

[16] See, e.g., California Public Resources Code § 25000.1, 25007, and 25543. (a) and (b).

[17] While there were few major power plants proposed (for approval by the CEC) during the 1990's, there were many small renewable power projects (totaling over 1,400 MW) that went into service during this period. See CEC website, http://www.energy.ca.gov/database Listing of Power Plants.

[18] For discussions of these and other short- and long-term factors contributing to the crisis in California see, for example (1) Ralph Cavanagh, Powering Up the West, Natural Resources Defense Council (September 25, 2001) http://www.nrdc.org/air/energy/orcprice.asp; (2) Timothy Brennan, Drawing Lessons from the California Power Crisis, Resources Issue 144, Resources for the Future (Summer 2001); and (3) William Marcus and Jan Hamrin, How We Got into the California Energy Crisis, http://www.jbsenergy.com/Energy/Papers/How_We_Got_into_the_California_Energy_Crisis.pdf.

[19] California Public Utilities Commission, Order Instituting Rulemaking and Order Instituting Investigation, Dockets R.94-04-031 and I.94-04-032 (April 20, 1994).

[20] At the end of 1994, Southern California Edison Company ("SoCalEd") and San Diego Gas and Electric Company ("SDG&E") petitioned the Federal Energy Regulatory Commission ("FERC") to enforce the Public Utilities Regulatory Policies Act ("PURPA") and vacate the CPUC order that required SoCalEd and SDG&E to enter into new long-term contracts to purchase "significant amounts of unneeded QF [qualifying facility] capacity." FERC, Southern California Edison Company and San Diego Gas and Electric Company, Order on Petition for Enforcement Action Pursuant to Section 210 (h) of PURPA, EL95-16-000 and EL95-19-000 (2-23-95), 70 FERC 61,215, at 1. See also FERC, Order on Requests for Reconsideration, 6-2-95, 71 FERC 61,269. FERC eventually found that the California decisions violated PURPA and FERC's implementing regulations, and FERC encouraged SoCalEd and SDG&E to reach settlements with the QF's on terms consistent with PURPA. FERC stated further that it had "grave concerns" about the need for this capacity: "We believe it is incumbent upon regulators, Federal and State, to avoid the creation of transition costs where avoidable." Id., at 22. Subsequently, SoCalEd and SDG&E signed agreements to cancel or postpone development of various power projects, totaling hundreds of megawatts of generating capacity. See "California PUC Orders Utilities to Negotiate with BRPU Winners," Independent Power Report, 7-14-95, page 7.

[21] To estimate reserve margins we subtracted California annual peak demand (unadjusted for weather) from installed capacity.

[22] A summary of the actions taken in legislation and executive orders with respect to modifying energy facility siting procedures is presented in Attachment 1. A summary of the standard (12-month) and expedited siting processes, as well as data on filings under each process, is presented in Attachment 2.

[23] For descriptions and comparisons of the various siting processes, see CEC, Comparison of Energy Commission Siting Processes Under Current Executive Orders, http://www.energy.ca.gov/sitingcases/siting_process_comparison.html; and CEC, California Emergency Power Plant Permitting, as revised March 13, 2001.

[24] The expedited siting processes had the following "sunset" provisions and applicant requirements: for the 21-day process, proposed projects had to be able to be brought on line by 9-30-01; for the 4-month process, an application had to be deemed adequate by 12-31-01, with the plant to be on line by 12-31-02; and for the 6-month process, there were no deadlines for submission of applications or for the proposed power plant to be on line. See Attachments 1 and 2.

[25] CEC, California Emergency Siting – Peaker Power Plant Permitting, http://www.energy.ca.gov/sitingcases/peakers/index.html.

[26] In addition, the timelines and requirements of the 21-day process have been at best a challenge for developers. Between the inception of the process in 2000 and this writing (January 2001), six project applications totaling 635 MW have been withdrawn by project applicants, including some that had received CEC approval. http://www.energy.ca.gov/sitingcases/withdrawn.html

[27] The CEC stated that "By early summer [of 2001], as the public's initial sense of crisis had begun to abate, environmental groups and members of the public became increasingly vocal in opposition to particular emergency projects, and opposition to the emergency process had begun to appear. Overall, public acceptance of the legitimacy of the emergency process appeared to be closely tied to public perception of the existence of an emergency to be addressed." CEC Emergency Conservation and Supply Response 2001, December 2001, page A-11.

[28] A "Major Stationary Source" is a plant whose emissions of certain criteria air pollutants exceed emissions thresholds established by the Clean Air Act of 1990.

[29] A poignant demonstration of growing disquiet over the curtailments on public input and environmental review in the emergency siting procedures occurred in late 2001. On October 17, 2001, the CEC adopted a resolution (01-1017-02) to waive the restrictions of not being a major stationary source or having to convert to cogeneration or combined cycle after three years. Strong reactions from public and environmental interests forced the CEC to reconsider this resolution, which was reversed by vote of the Commission on December 5, 2001. See Carrie Peyton, Loopholes Closed on New Plants, Sacramento Bee, December 6, 2001.

[30] One interesting twist on these siting politics is the potential effect of the introduction of a new, relatively efficient and low-emitting power plant on dispatch of other older, less efficient and higher-emitting power plants in a regional market (to meet a given level of demand). The dispatch of the new plant can displace output at existing plants. Because the newer plant typically has lower emissions per megawatt-hour of generation output than older fossil-fueled plants, its operation can lower overall emissions of air pollutants from the power sector, depending on the extent to which new plants displace output from older fossil-fueled facilities rather than displacing generation from other fuel sources or simply meeting growth in regional demand. This fact complicates the politics of siting new power plants where there may be environmental (but sometimes remote) benefits of adding the new plant that must be weighed against the typically more local impacts of the plant's construction and operation. Power plant siting processes must weigh these trade-offs on a case-by-case basis.

[31] California's deadline is one year, covering most permits and approvals. Massachusetts' is a year for the siting agency, with separate time limits for other state environmental permitting offices. New York's consolidated siting process has a goal of 14 months, with the possibility of a 6-month extension. Connecticut, Oregon and Washington have a 6-month deadline, although Connecticut and Wisconsin can ask for a 6-month extension. New Hampshire has a 10-month siting process.

[32] California Energy Commission Report, Emergency Conservation and Supply Response 2001, at A-11 (December, 2001).

[33] The character of price impacts associated with generation investment depend upon (among other things) whether such investment is covered under traditional rate regulation (with investment covered under cost-of-service regulation and rate-base treatment, to be recovered by captive ratepayers) or under market-based rates (with prices set according to competition and with prices reflecting a combination of bilateral agreements, spot market performance, and/or retail rate policies for recovery of such costs).

[34] California and Massachusetts have eliminated altogether their "need" determinations as part of their power plant siting processes, and New York allows applicants to make a showing that the generation market is competitive as the basis for demonstrating that the facility is needed.

[35] This process element in Massachusetts is called the "technology performance standard" (or "TPS"). New York State has recently adopted a TPS for new power plant proposals, and will review project proposals with emissions that meet or exceed the standards according to expedited review/licensing schedules.

[36] See, for example, the recent report prepared for the Latino Issues Forum by Karen DeGannes, Estrada ECOnsulting and Associates, Robin Saha, Power Against the People? Moving Beyond Crisis Planning in California Energy (November 2001).

[37] January 16, 2002, Case No. PUE010039.

[38] See Carrie Peyton, Loopholes Closed on New Plants, Sacramento Bee, December 6, 2001.

[39] See Chris Deisinger, The Backlash against Merchant Plants and the Need for a New Regulatory Model, The Electricity Journal, December 2000 at 51. In his report, Deisinger provides examples in several states of recent opposition to merchant plant development, suggesting that this represents in part a public backlash against the evolution of siting procedures from planned processes focussed on public interest to "…chaotic, competitive, and market-driven" processes.

[40] CEC, Emergency Conservation and Supply Response 2001, December 2001, page A-11, A-13.

[41] The Siting Process – Practice and Procedure Guide, California Energy Commission, July, 1999.

[42] See, for example, http://www.dps.state.ny.us/articlex_applicant_letter.PDF

[43] The CEC itself has come to the same conclusion with respect to the 21-day and 4-month processes, and has supported allowing these processes to lapse on December 31, 2001, as anticipated in the Executive Order that created them. See CEC, Emergency Conservation and Supply Response 2001, December 2001, page 15.

ATTACHMENT 1

LAWS AND EXECUTIVE ORDERS RELATED TO NEW SITING PROCEDURES

EXECUTIVE ORDERS							
	D-14-01	**D-22-01**	**D-24-01**	**D-25-01**	**D-26-01**	**D-27-01**	**D-28-01**
Date	August 2, 2000	February 8, 2001	February 8, 2001	February 8, 2001	February 8, 2001	February 8, 2001	March 7, 2001
Description of Provisions Related to Generation Siting	--All state agencies involved in siting shall participate in timely manner in process without compromising protection of health and safety, the quality of the environment or public participation. --All shall submit comments to the lead agency within 100 days of application deemed complete. --CEC shall propose legislation or regulations to expedite process for the cleanest plants.	--No CEC review needed for plants increasing output by less than 50 MW using existing capacity. --Expedite process for thermal plants requiring only a retooling and current license. CEC can reduce time consistent with the objectives of environmental protection and public health and safety protection. --All local, regional, and state agencies shall work cooperatively with CEC within its timelines. --SWRCB shall remove limitations associated with thermal limits in waste discharge requirements.	--Board gets districts' authorities where they don't comply with EO to modify limits allowing operation above the limits. --Board to establish Emission Reduction Credit bank for new peaking units operational in summer 2001. Includes other offset assistance provisions, particularly for units under contract to DWR.	--Total expedition of post-certification amendments re: proposals to convert simple cycle (SC) plants to combined cycle or cogenerating plants. No regulations required to do this - case by case review.	--All state and local agencies may shorten review periods to 7 days for environmental documents prepared under the CEQA, for plants not under Commission jurisdiction and on-line by summer 2001. --Expedition of processing of AFC for peaking or renewable power plants for operation by July 31, 2001. --The 4-month licensing for SC thermal plants (PRC sec. 25552) shall apply to any SC thermal on-line by August 31, 2002, and that has an AFC accepted as complete by Dec 31, 2001. --No requirement to secure emission offset credits in AFC (for plants pursuant to PRC sec. 25550). --All agencies shall participate in CEC process in an expeditious manner consistent w/ the objectives of protecting environment and public H&S. --CPUC shall ensure utilities complete interconnection studies in 7 days.	--Dept. of Parks and Recreation shall provide funds to Energy Commission for performance awards for construction of powerplants online by July 1, 2001.	--All reviewing agencies have authority to modify their procedural requirements as required by EOs. --All agencies involved in implementation of EO D-22-01 thru D-26-01 shall follow requirements for environmental protection and public health and safety. --Expedite processing of AFC for peaking or renewable plants online by Sept. 30, 2001. --The authority provided to "districts" in EO D-24-01 shall also apply to any power gen. facility. No permit modification under EO D-24-01 or this Order shall be valid for >3 years.
Plants Affected	--All plants	--Plants increasing output by less than 50 MW, or that require retooling and a current license to operate	--New peaking units operational by summer peaking season, 2001	--Proposals to convert existing simple cycle plants to combined cycle or cogeneration plants	--Plants not subject to CEC jurisdiction and proposed to be online by summer 2001; peaking or renewable power plants online by July 31, 2001; SC thermal online by Aug. 31, 2001 and having AFC complete by Dec. 31, 2001.	--Plants online by July 1, 2001	--Peaking or renewable plants online by Sept. 30, 2001
Timing Provisions	100 day agency review of applications	Expedite; other agencies must work within CEC timelines		Suspends normal agency administrative requirements	Expedite; Interconnection studies within 7 days		Modification of permit -> not valid after 3 years of this Order
Expiration	December 31, 2001	December 31, 2001	December 31, 2001	December 31, 2001	December 31, 2001		December 31, 2001

	EXECUTIVE ORDERS (cont'd)		LEGISLATION		
	D-32-01	**D-34-01**	**SB 110 (Peace) (pre-crisis)**	**AB 970 (Ducheny)**	**SB 28 (Sher)**
Date	April 26, 2001	April 26, 2001	Signed by Governor 9/28/1999	Signed by Governor 9/6/2000	Signed by Governor 5/22/2001
Description of Provisions Related to Generation Siting	--EO 27-01 rescinded and replaced by this Order. --Dept of Parks and Recreation shall provide funds to DWR for performance awards for construction of power plants online by Aug. 31, 2001.	--CEC shall expedite award of funding from the peak load reduction programs. --CEC shall delegate to a committee, approval of all peak load reduction program contracts, grants and loans.	--Removed some planning analysis from CEC and essentially eliminated the role of need determinations in CEC siting evaluations.	--Established expedited 6 and 4 month processes through changes in CEC and air districts' statutes. --Intent of act cites desire to not "…in any manner compromise[e] environmental protection." --Requires PUC to ensure utilities complete interconnection studies in 7 days. --Provisions related to 6 month process: 100 day comment period for agencies; priority for superior environmental or efficiency performance; contracts for construction; addresses disproportionate impacts (65040.12); in effect until 1/1/04. -- Provisions for 4 month process: not a major stationary source; equipped w/ BACT; no significant adverse environmental effect; contracts for construction; completed application by 10/31/00 [deleted by SB 28]; may pay fee if no offsets; LORS. --Under 4 month, permit expires in 3 years unless repowered with combined cycle and meets all offset requirements.	--Provides for expedited review of repowering projects; contains some retrofit, ERC banking and offset provisions for ARB, the latter two in part to support new plant development; deletes deadline for completed applications for expedited decision on simple cycle plants (which was established by AB 970).
Plants Affected	--Plants online by Aug. 31, 2001			--For 6 month process, all CEC jurisdictional facilities where CEC finds no significant adverse impact on environment or electrical system, and plant will comply with all applicable LORS. --For 4 month process, simple cycles that can be put into service on/before 8/1/01.	--All with respect to expedited agency review; --Simple cycles, with respect to change in on-line date (to 12/31/02).
Timing Provisions				6 months (CEC) /100 days (agencies), or 4 months (CEC)	Agencies -- preliminary at 45 days; final issues at 100 days.
Expiration	December 31, 2001	March 31, 2002		January 1, 2003, for expedited review provisions	January 1, 2004 for expedited review provisions

Legislation and Executive Orders Available From the Following:

Legislation:
SB 28 (http://info.sen.ca.gov/pub/bill/sen/sb_0001-0050/sbx1_28_bill_20010522_chaptered.html)
SB 110 (http://info.sen.ca.gov/pub/99-00/bill/sen/sb_0101-0150/sb_110_bill_19990929_chaptered.html)
AB 970 (http://info.sen.ca.gov/pub/99-00/bill/asm/ab_0951-1000/ab_970_bill_20000907_chaptered.html)

Executive Orders:
http://www.governor.ca.gov/state/govsite/gov_homepage.jsp

ATTACHMENT 2

FEATURES OF NEW SITING PROCEDURES

Process	DESCRIPTION/ APPLICATION	ADMINISTRATION/ TIMELINES	PUBLIC INPUT	STANDARDS	APPLICATIONS/ APPROVALS		
					1974-1989	1990-2000	2001
12-month	The 12 month CEC review process is the process in place prior to the 2000-01 energy crisis. It involves the review of all power plants over 50 MW in size.	Subsumes all requirements of any state, local, or regional agency. Meets requirements of certified regulatory program under CEQA. CEC also attempts to coordinate process with federal requirements. 45 days for data adequacy evaluation. Full commission decision within 12 months of data adequacy determination. Other jurisdictional state and local agencies provide input within 180 days. 30-day review of CEC proposed decision.	Applicant encouraged to hold meetings with local agencies and interests to scope out issues prior to filing. Comments to staff through workshops and comment on staff assessments. Comments to CEC through formal hearing process. Full-time Public Advisor to encourage and assist public input.	Air quality, alternative sites, biological and cultural resources, hazardous material management, land use, public health, socioeconomics, soils, traffic/transportation, transmission line safety, visual impacts, waste management, water resources, worker safety.	*# Applications*: 37 (4285 MW) # Withdrawn or suspended by applicant: 0 *# Approvals*: 37 (4285 MW) Note: 7 were approved but not built; 3 were built but have since closed Note: Included are projects that qualified for SPPE process.	*# Applications*: 37 (15547 MW) # Withdrawn or suspended by applicant: 9 *# Approvals*: 26 (11993 MW) # Decision yet to be made: 3 Note: 2 were approved but not built Note: Included are projects that qualified for SPPE process	*# Applications*: 12 (6871 MW) # Withdrawn or suspended by applicant: 2 *# Approvals*: 1 (80 MW) # Decision yet to be made: 9 Note: Included is a project that qualified for SPPE process
6-month	Expedited process similar in form to 12 month process.	Other jurisdictional state and local agencies provide input within 100 days.	Same in form, but reduced in time for public workshops during staff assessment phase.	For facilities with no public health or safety concerns, full mitigation of environmental impacts, no reliability impacts on electric system, control of site, little or no public controversy.			*# Applications*: 10 (3726 MW) # Withdrawn or suspended by applicant: 3 *# Approvals*: 0 (0 MW) # Decision yet to be made: 7

Process	DESCRIPTION/ APPLICATION	ADMINISTRATION/ TIMELINES	PUBLIC INPUT	STANDARDS	APPLICATIONS/ APPROVALS		
					1974-1989	1990-2000	2001
4-month	For peaking power plants with applications in by December 2001, and that will be operational by end of December 2002. Approval carries 3 year operating limit; requires refiling to continue operation. Must also meet the "no or little impact" test of expedited reviews.	Other jurisdictional state and local agencies provide input within 90 days.	Same in form, but reduced in time for public workshops during staff assessment phase.	For facilities with no public health or safety concerns, full mitigation of environmental impacts, no reliability impacts on electric system, control of site, little or no public controversy.		*# Applications*: 2 (501 MW) # Withdrawn or suspended by applicant: 1 *# Approvals*: 2 (501 MW) Note: Included is the 450 MW Huntington Beach Modernization Project approved in an expedited case in 2 months (per conversation with CEC staff)	*# Applications*: 4 (873 MW) # Withdrawn or suspended by applicant: 1 *# Approvals*: 1 (102 MW) # Decision yet to be made: 2
21-day	For peaking power plants operational by September 30, 2001. Approval also carries the three year operating limit.	Other jurisdictional state and local agencies provide input within 10 days.	2 public hearings, limited public review.	For facilities with no public health or safety concerns, full mitigation of environmental impacts, no reliability impacts on electric system, control of site, little or no public controversy. Exempt from CEQA			*# Applications*: 15 (1319 MW) # Withdrawn or suspended by applicant: 6 *# Approvals*: 11 (926 MW)

Siting Process Descriptions Available From the Following:

http://www.energy.ca.gov/sitingcases/index.html

ATTACHMENT 3

FEATURES OF NEW SITING PROCEDURES IN OTHER STATES

State	Efficiency of the Review Process		Standards of Review		Public Participation
	Agency Coordination	Deadlines	Need / Public Benefit	Environmental	
California	One-stop siting process under the California Energy Commission, with all requirements of any state, local or regional agency effectively subsumed under CEC process. CEC members are appointed by the Governor to serve as commissioners on full array of issues under the jurisdiction of the CEC.	Standard one-year deadline for large power plant applications (50MW+). Under Executive Orders issued in 2000, expedited review process for certain categories of power plants: 21 days for peaking plants that can come on line by 9/2001; 4 months for peaking plants that submit filings by December 2001 and which can be operational by 12/2002; 6 months for other power plant applications where applicant controls the site and where there are no public health or safety concerns, all environmental impacts are mitigated, and there is little/no public controversy.	None.	Meets requirements of California Environmental Quality Act (CEQA). Wide array of environmental impacts (e.g., air quality, alternatives, water, land use, noise, visual, wastes, traffic, etc.) are reviewed by CEC and the other coordinated agencies.	Applicant encouraged to hold voluntary meetings with local agencies and interested parties prior to filing application. Staff and Public Advisor are involved in making their cases as part of the formal public review process. Public allowed to comment informally to CEC staff through workshops, and formally to CEC through the hearings process.
Connecticut	Although the Siting Council has exclusive jurisdiction to regulate the siting of facilities under its jurisdiction, it is not a "one-stop" process. Air quality and other construction and operating permits must be obtained from other agencies (federal, state, regional, municipal), although the Siting Council application must include information on all other needed approvals. Municipal zoning and inland wetland commissions may regulate and restrict power plant projects (e.g., location) as well, although upon appeal by application, the Siting Council may affirm, modify, or revoke a municipal order by a vote of 6 members for the 10-person Siting Council. Some of the members serve *ex officio* through their positions at the Department of Public Utility Control and the Department of Environmental Protection. There is a full-time staff at the agency. At least 60 days before filing of an application w/ the Siting Council, applicant must consult with host municipality concerning proposed and alternative sites, with the municipality issuing its recommendations within 60 days of the initial consultation.	Siting Council issues a "filing adequacy" determination within 30 days of filing. Siting Council must render a decision within 180 days of receipt of the application, although deadline is extendible by another 180 days upon consent of the applicant.	Application must include full explanation of the project's public benefit ("why the proposed facility is necessary for the reliability of the electric power supply of the state or for a competitive market for electricity").	Application must include detailed environmental analysis on full array of impacts (alternatives, air quality, water, land use, noise, visual, wastes, traffic, etc.) plus a demonstration of how the proposed facility would comply w/ Prevention of Significant Deterioration (PSD) and Non-attainment New Source Review (NSR) requirements.	Applicant must use reasonable efforts to provide notice of the application to groups, including community groups, environmental organizations, trail organizations, historic preservation groups, river protection organizations. Public may make comments at local public hearing at the beginning of the hearings process. Public may be allowed to formally intervene as full party to the case. Public may also participate through the meetings of the municipality, which influence the municipality's recommendations. State's Attorney General and Office of Consumer Protection may participate as parties to the case.

State	Efficiency of the Review Process		Standards of Review		Public Participation
	Agency Coordination	Deadlines	Need / Public Benefit	Environmental	
Florida	DEP is the lead agency for coordination of state siting review, both to coordinate and support the Board and to carry out its "standard" jurisdiction (i.e., permits, etc.). As part of the filing, the applicant submits permit applications for federally delegated or approved permit programs (including PSD/NSR, Title V, NPDES, UIC, RCRA). DEP, not the Board, is responsible for review/approval of such permits with the deadlines coordinated as much as possible with the Siting Board (with no requirement that they be the same). By Day 210, information must be available on whether the project will meet federally delegated or approved permit program requirements. If not possible (e.g., due to federal process needs), draft positions are used.	Pre-filing: Public Service Commission prepares/administers 10-Year Site Plan reviews and need determinations for the utility. The applicant submits a Notice of Intent at least 6 months prior to application and begins working with reviewing agencies so that application meets filing requirements. Completeness determination is made within 15 days, with notice and distribution to agencies 7-15 days later. Sufficiency determination is made within 15 days. The majority of applications submitted over the years have not been sufficient as filed. Certification Hearing occurs no later than 300 days after application is complete, with Administrative Law Judge issuing recommended order about 60 days later and with Siting Board acting within 60 days thereafter.	Need determination is made, based on the needs of electric utility companies.		
Massachusetts	The only formal coordination that occurs is between the Siting Board and the Office of Coastal Zone Management for power plants proposed in the coastal zone. Membership on the Siting Council includes the Chair and a commissioner of the Department of Telecommunications and Energy, the Commissioner of Energy, Secretary of Environmental Affairs, and several public members appointed by the Governor. Full-time staff. Informal coordination between the review processes of the Massachusetts Environmental Protection Act (MEPA) and the Department of Environmental Protection, at least in terms of common information filings. No other agency may issue a final permit on a power plant until the Siting Board has acted. An applicant may petition the Siting Board to override zoning and other local permits and approvals, which typically occurs (if it occurs at all) after the Siting Board has issued its order on the project.	The agency has one year to issue a decision on a power plant application.	Massachusetts Restructuring Act removed the requirement to prove need for power plants. For new power plants that meet a "technology performance standard" (the emissions associated with a gas-fired combined cycle unit), there is no requirement to analyze other technologies.	Reviews wide array of environmental impacts (e.g., air quality, alternatives, water, land use, noise, visual, wastes, traffic, etc.). Applicant must separately file a draft Environmental Impact Report with the MEPA office, and receive approval of it as part of state review process. Applicant must separately get all environmental permits and approvals.	Public may participate informally through a public hearing process. Additionally, members of the public may participate formally in the case as "Interested Party" or as an "Intervenor", with different legal rights (including sponsoring witnesses, cross-examining applicant witnesses, writing briefs, appealing the final agency decision). Intervenors have to petition and explain why they are potentially affected by the application and why their interests aren't adequately represented by another party.

State	Efficiency of the Review Process		Standards of Review		Public Participation
	Agency Coordination	Deadlines	Need / Public Benefit	Environmental	
New Hampshire	Siting process is a "one-stop" process, with the consolidated siting application in lieu of separate applications that may be required of other state agencies (162-H:7 VII). The Site Evaluation Committee is convened upon filing of an application, with membership including agency heads (Commissioner of Dept of Environmental Services (chair); Chair of Public Utilities Commission (vice-chair); Director of Division of Water; Commissioner of Dept. of Resources and Economic Development; Commissioner of Health and Human Services; Executive Director of Fish & Wildlife; State Planning Director; Director of Air Resources; Director of Governor's Energy Office; Commissioner of Dept of Transportation; agency heads for parks and recreation, and for forests and lands.) There is no permanent siting staff. The siting determinations are tied to agency decisions which are jointly issued: "...the committee shall not issue any certificate...if any of the other state agencies denies authorization for the proposed activity over which it has jurisdiction."	Committee has 60 days to distribute application among agencies, and determine whether or not to accept it (i.e., whether it has sufficient information). Within 5 months of filing, all participating state agencies report on their progress to the Site Evaluation Committee, outlining draft permit conditions and specifying additional data requirements necessary to make final decision. Any state agency with jurisdiction submits to the Site Evaluation Committee a final decision on those permit applications no later than 8 months after application accepted. Within 9 months of acceptance, Site Evaluation Committee either approves or denies certificate, or sends its findings to the Public Utility Commission for a certificate for a bulk power facility. The PUC shall either issue or deny that certificate within 10 months of the acceptance of the application.	Application must demonstrate that it helps to assure adequate supply of energy (i.e., need determination).	Reviews every environmental impact (e.g., air quality, alternatives, water, land use, noise, visual, wastes, traffic, etc.) that is the subject of a state permit or approval.	Attorney General appoints a staff AG to serve as Counsel for the Public, and who represents the public in seeking to protect the quality of the environment and in seeking to assure an adequate supply of energy. Site Evaluation Committee and Counsel for the Public jointly conduct such reasonable studies and investigations as they deem necessary or appropriate, and may employ a consultant or consultants, legal counsel and other staff, with the cost borne by the applicant (with the amount approved by the Committee and the PUC in the case of a bulk power supply facility). Within 30 days after application acceptance, at least one joint public hearing is held, with representatives of other agencies - which satisfies legal requirement of each agency to hold a public hearing. Subsequent hearings are in the nature of adversary proceedings.

State	Efficiency of the Review Process		Standards of Review		Public Participation
	Agency Coordination	Deadlines	Need / Public Benefit	Environmental	
New York	The "Article X" Generation Siting Board members are: Chair and Commissioners of the Dept of Public Service, Dept of Environmental Conservation (DEC), Dept of Public Health, Dept of Economic Development; head of the NY State Energy Research and Development Agency; and a resident from the judicial district and county. In conjunction with the Article X process, the DEC reviews and decides permits, with its review processes coordinated to the maximum extent practical (e.g., through joint hearings and common records with the Siting Board). The DEC must provide final permits to the Siting Board before the Board decides whether to grant a Certificate.	Prior to preliminary scoping statement (PSS): public outreach encouraged. Pre Application phase -- after filing of PSS/ development of stipulations for environmental or other impact studies. After filing of application, 60 days to determine if the filing is in compliance. Review process includes public and evidentiary hearings. "The goal is that decision (on whether to grant Certificate) is made w/ in 14 months after application is filed (about 2-4 from filing to determination of compliance and 10-12 for review process). IF a substantial changes is made, Board may take up to 6 months more."	To approve an application, the Siting Board must find that (a) construction of the facility is reasonably consistent with the most recent State Energy Plan, or (b) the facility will be constructed and operated as part of the competitive electricity supply market.	The application must contain proof that facility will meet state and federal health, safety and environmental regulation; and all applications for air and water permits.	2 public members assigned to Board for each case -- one from judicial district, one from county. Prior to filing of preliminary scoping statement, applicant is encouraged to consult informally with residents, municipals, environmental interests and other groups. Applicant must carry out a meaningful public involvement program, holding meetings, offering presentations, establishing a community presence, toll free number, website, etc. DPS has guidance on specific standards to demonstrate active solicitation of public input from the applicant, as well as actions that must be taken by Siting staff, throughout process from pre-preliminary all the way through. $1K/mW up to $300K for intervenor fund, to municipal and other local parties to defray expenses of expert witnesses. At least 50% of this is for municipalities, and up to 50% for other local parties.

State	Efficiency of the Review Process		Standards of Review		Public Participation
	Agency Coordination	Deadlines	Need / Public Benefit	Environmental	
Oregon	Council uses its own standards as well as the applicable rules and ordinances of other state and local agencies. The Council's decision is binding on all state/local agencies; the other agencies (except for the issuance of federally delegated permits by the Dept of Environmental Quality) must issue necessary permits and licenses, subject only to the conditions adopted by the Council. Applicant chooses whether to seek land use approval from local jurisdiction, or from Council. If at the locality, the approval is required before the council issues its certificate; if at the Council, local officials are involved and this is one of the "substantive criteria." The EFSC has seven public members appointed by the governor and confirmed by the Oregon Senate. Its members must be geographically represented. The members are "Volunteer citizens" -- and only get reimbursement for expenses.	SC is required to render a decision within 6 months following the filing of a petition for review. There are various steps in the review process: (1) a notice of intent (NOI process), which can be waived upon request for expedited review; (2) Application, including completeness determination, agency substantive review, and draft proposed order (DPO); (3) public hearing on DPO; (4) Proposed Order, then contested case; (5) hearing officer-proposed Order, with Council decision; (6) Oregon Supreme Court for judicial review, if necessary	Yes/No standard: If the proposed facility meets the standards, the Council must issue the site certificate; if not, it can't. (The Council may waive under certain conditions, but has not done so.)	Council issues decisions on all environmental permits and approvals, except those that are federally delegated (which are issued by the DEQ).	Following issuance by the Office of a DPO (which contains the Office's proposed findings of fact, recommended conclusions on compliance with Council Standards, and recommended site certificate conditions), the Office holds a public hearing. Anyone having a concern in opposition must raise the issue at the hearing or in writing by the close of the hearing. Only those issues that are raised at this time can be addressed later in the contested case proceeding. After issuance of a Proposed Order, there is a contested case proceeding including presentation of evidence, rebuttal, cross-exam, and rights to discovery and appeal.
Rhode Island	The siting board is the "one stop", coordinated licensing and permitting authority for all licenses, permits, assents, or variances which, under any statute of the state or ordinance of any political subdivision of the state, would be required for siting, construction or alteration of a major energy facility in the state. The siting board membership is composed of members from any agency of the state or political subdivision of the state which would be required to issue a permit or approval for the siting, construction, or alternation of a major energy facility (with the exception of federally delegated approvals). The licensing decision issued by the Board is the sole, final binding, and determinative regulatory decision within state. Judicial review is available.	After a filing is made, an adequacy determination is made within 30 days; if the application is adequate, it is docketed; if not, the Board issues a notice of deficiency, within 15 days. Within 60 days after docketing, a preliminary hearing is held (issues identified, designate agencies acting at direction of board). Within 30 days of hearing, the Board issues a decision. Each agency shall conclude its consideration of the application and issue an advisory opinion not more than 6 months following its delegation from the board. Within 45 days after this advisory opinion date, the Board convenes final hearing, and within 60 days of conclusion of final hearing, the Board issues final decision.	Need determination is required - so that construction, operation and/or alteration of major energy facilities are undertaken only when those actions are justified by long term state and or regional energy need forecasts.	Wide array of environmental impacts (e.g., air quality, alternatives, water, land use, noise, visual, wastes, traffic, etc.) are reviewed by the coordinated agencies. A town or city where a proposed facility is proposed to be located may request funding from the developer for studies of the environmental impacts of the proposed facility, with the amount limited to the lesser of $100,000 or 0.1% of the estimated cost of the proposed facility	The affected host community may request funding for studies of environmental impacts.

State	Efficiency of the Review Process		Standards of Review		Public Participation
	Agency Coordination	Deadlines	Need / Public Benefit	Environmental	
Washington	The process includes several elements: There is an attempt for joint SEPA/NEPA EIS review and hearings, with the Council hiring a consultant to prepare EIS (at the Company's expense). The adjudicatory proceedings are held at the same time that air and water discharge permits are developed, with the Council administering the permit proceedings. EPA has delegated responsibility for issuing the PSD and NPDES permits to the Council. The Council makes a recommendation to the Governor, including a draft site certification and permits. There is a separate hearing on consistency with local land use plans; and the applicant can request state preemption if the local agency does not grant a variance.	Pre-filing process is 4-8 months, with an additional 14 months after the application if filed to the recommended decision presented to the Governor. The applicant may apply for a super-expedited review (approximately a 6 month review), and an applicant is eligible if the Council finds the project is consistent with land use, with insignificant environmental impact, affected area, land-use changes at the site.		Full array of environmental issues are addressed. When application is submitted, Council hires a consultant to evaluate the information submitted and to prepare an EIS (at applicant's expense, with the consultant working for the Council). For some projects, only an environmental checklist is required.	AG appoints "Counsel for the Environment" to be party representing the public and its interest in protecting the quality of the environment in the proceedings. Council asks counties and cities where the plant is to be located to appoint representatives to sit on the Council when considering issues within their jurisdiction.
Wisconsin	Approval of Public Service Commission (PSC) is required, alongside a separate permitting process of the Dept of Natural Resources (DNR). Application must include Environmental Impact Report. PSC and DNR may prepare an Environmental Assessment and maybe an Environmental Impact Statement (EIS). Staff of both agencies draft EIS; 45 day public review, then final	PSC process must be completed (or automatically approved as proposed) in 6 months after application is determined to be complete (30 days to determine this). Court order required to extend beyond 6 months			Public Information Meeting is held one or more times during review process. Public hearing near site. Members of the public may be a "full party."

State Information Available From the Following:

Connecticut: http://www.state.ct.us/csc/
Florida: http://www.dep.state.fl.us/siting/Programs/
Massachusetts: http://www.state.ma.us/dpu/siting/
New Hampshire: http://nhsec.state.nh.us/
New York: http://www.dps.state.ny.us/articlex.htm
Oregon: http://www.energy.state.or.us/siting/
Rhode Island: http://www.rilin.state.ri.us/Statutes/TITILE42/42-98/S00002.htm
Washington: http://www.efsec.wa.gov/cert.html
Wisconsin: http://www.psc.state.wi.us/writings/